

*U.S. DEPARTMENT OF COMMERCE*  
*Office of Inspector General*

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RELEASE**

*OFFICE OF THE SECRETARY*

*There Are Lessons to Be Learned from the  
October 1999 Fire and PCB Accident  
in the Herbert C. Hoover Building*

*Final Inspection Report No. IPE-12453/March 2000*

*Office of Inspections and Program Evaluations*



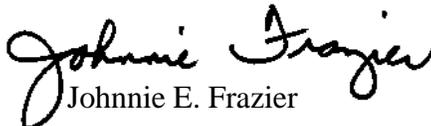


**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Inspector General**  
Washington, D.C. 20230

March 21, 2000

**MEMORANDUM FOR:** Linda J. Bilmes  
Chief Financial Officer and  
Assistant Secretary for Administration

**FROM:**

  
Johnnie E. Frazier

**SUBJECT:** Final Report: *Office of the Secretary -- There Are Lessons to Be Learned from the October 1999 Fire and PCB Accident in the Herbert C. Hoover Building (IPE-12453)*

Attached is the final report on our inspection of the October 1, 1999, fire and polychlorinated biphenyl (PCB) accident in the Department's Herbert C. Hoover Building. The report includes comments from your March 1, 2000, response to our January 31, 2000, draft report. A copy of your response is included in its entirety as an appendix to the report.

Our report highlights a number of safety, security, environmental cleanup, and communication issues that arose during and after the October 1 incident. We are pleased that you and your staff have already taken or propose action to address many of our recommendations. However, we are requesting that you reconsider your proposed actions for dealing with our recommendation to improve sign-in/sign-out procedures during non-duty hours. Within 60 calendar days, please provide us with an action plan to address our recommendations.

We thank the personnel in the Office of Administrative Services and the Office of Security for the assistance and courtesies extended to us during our review. We will continue to work closely with OAS and OSY staff to identify appropriate actions for dealing with our recommendations. If you have any questions or comments about our report, please contact me on (202) 482-4661, or Jill Gross, Acting Assistant Inspector General for Inspections and Program Evaluations on (202) 482-2754.

Attachment

cc: Raul Perea-Henze, Deputy Assistant Secretary for Administration  
K. David Holmes, Deputy Assistant Secretary for Security  
Anthony Fleming, Director, Office of Administrative Services  
Sonya G. Stewart, Director, Office of Executive Budgeting and Assistance Management

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## EXECUTIVE SUMMARY

On Friday, October 1, 1999, at approximately 6:00 am, two fires occurred in the basement of the Commerce Department's Herbert C. Hoover Building in Washington, D.C. One fire, in the north end of the building, was put out almost immediately by two contractors working nearby. The other fire, at the south end of the building, was put out by two building engineers at approximately 6:25 am. Both fires were contained in wall-mounted electrical boxes that house metal capacitors, which are part of the electrical system that controls the Hoover Building's centralized clock system.

Within a few hours of the fire, it was determined that oil in the capacitors contained polychlorinated biphenyls (PCBs), a dangerous toxic chemical. As a result, 43 people (Commerce employees, contractors, and firefighters) who came into contact with the fire's smoke or the oil that leaked from the capacitors had to go through a decontamination process that began on the Hoover Building grounds and ended at George Washington University Hospital.

The Hoover Building was closed for the day on Friday and remained closed throughout the weekend as testing and cleanup began. The Department, based on a recommendation from the General Services Administration, determined that floors 1 through 7 of the building were safe to occupy on Monday, October 4. The basement did not reopen until the following day, Tuesday, October 5. The environmental cleanup process continued, mostly on the weekends, until December 3. At the conclusion of the cleanup process, the cleanup contractor stated that the Hoover Building was considered fully restored to its pre-October 1, 1999, condition with regard to PCB contamination.

We performed an inspection of the October 1 incident in order to assess the circumstances surrounding the fire and identify any lessons to be learned from the experience that would be helpful in the future. We also wanted to determine whether the electrical equipment involved in the accident was properly maintained, and whether proper signs were in place warning of the presence of toxic materials. We also reviewed certain safety and security systems and procedures that reportedly did not work well during the incident, as well as how the environmental testing and cleanup process was handled. Finally, we assessed the Department's emergency response to the incident, including communications with outside assistance organizations and with Hoover Building occupants. We hope that our observations will serve as "lessons learned" for the Department in how to deal with future incidents of this magnitude as well as provide a checklist for specific safety and environmental concerns that need to be addressed. During the course of our review, we shared our observations related to the safety and security of the Hoover Building with the appropriate Departmental officials so that they could begin taking immediate corrective action. Our specific observations are as follows:

**Definitive cause of the fire is not known.** Because the fire-damaged materials were removed and incinerated shortly after the incident, no one can be certain about the underlying cause of the

fire. However, building managers and GSA personnel surmise that the most likely cause of the fire was an electrical overload of the capacitors (see page 5).

**Use of PCB-containing capacitors was permitted, but other issues involving PCBs in the building need to be addressed.** The use of the PCB-containing capacitors, which were involved in the October 1 incident, was legally permitted and there was no requirement to mark them as containing PCBs. However, there are other sources of PCBs in the building, including the majority (80 percent) of the fluorescent light ballasts, the floodlights that illuminate the building exterior at night, and some of the air conditioning equipment located on the 8<sup>th</sup> floor. At present, these PCB sources are not well inventoried or marked. In addition, eight vaults in the basement have floors contaminated with PCBs that leaked from PCB-laden transformers that were removed from the building in the late 1980s. Most of these vaults were not marked as required, and those that were had misleading signs. Finally, the protective footwear required to work in these contaminated vaults was not being provided to people who had to perform work in there (see page 7).

**Building safety issues were highlighted due to the fire.** The systems and processes designed to protect human life in the Hoover Building were tested during the October 1 incident, and problems came to light. For example, the fire alarm rang for only nine minutes because someone turned it off prematurely. There is no departmental policy covering who is allowed to turn off a fire alarm and when it is appropriate to do so. Also, the building does not have a public address system to communicate with occupants of the building in an emergency. In addition, the building's fire and smoke alarms experienced some minor problems during the incident. There was also a stairwell designated as an exit route that was locked at the first floor level, which is a serious safety violation. Similarly, at least one exterior door was not unlocked and therefore was not usable for exit during the building evacuation. Furthermore, we found that the doors to the basement vaults, which contain critical electrical equipment, are not routinely locked. Finally, many people who evacuated the Hoover Building on October 1 were unaware that all doors in the building should be open for exit at any time, so most of them exited through the one entrance open in the early morning hours. Had there been more people in the building at the time, there could have been a "traffic jam" at this entrance, which would have constituted a serious safety issue (see page 11).

**Building security concerns need attention.** Several problems with the building's security systems and procedures were highlighted on October 1. For example, despite the fact that the building had been evacuated, employees were still able to enter, unchallenged, through the key card entrances off the north and south courtyards. In addition, the sign-in/sign-out logs that are used before and after normal working hours are not an accurate representation of who is in the building because not all people who enter the building at the entrances where the logs are maintained are required to sign in or sign out (see page 19).

**Inaccurate information and noncompliance with regulations led to problems during environmental cleanup.** Certain assumptions were made about where smoke traveled and where people with potentially contaminated footwear walked during the October 1 incident. These assumptions had a direct impact on the decisions that were made about what environmental tests to perform and where to clean up. Unfortunately, these assumptions were made with little or no input from eyewitnesses. Better information would certainly have led to better decisions. In addition, in some instances, environmental regulations were not followed with regard to securing the cleanup areas. While the hallways were still being cleaned, the standards were met. However, once the contamination was limited to the inside of the vaults, the areas were not properly cordoned off and warning signs were not in place (see page 22).

**More attention should have been paid to employee relations.** Some of the help provided to employees and others exposed to the health risks was excellent. The assistance provided by departmental staff at the hospital was both greatly needed and appreciated by the employees and contractors, many of whom lost all of their belongings on their person at the time of the fire. The employees we interviewed also praised the Department's Workers' Compensation Program for providing good support. However, relations and communications with employees could have been improved in some areas. Specifically, employees involved in the incident were not provided access to counseling to help them deal emotionally with what happened to them. Also, an informational meeting with the many employees and contractors directly affected by the events of October 1 was not held until 25 days after the incident, although some meetings were held with staff housed in the basement and Child Care Center staff and parents prior to this informational meeting. Finally, little information about the incident has been shared with all Hoover Building occupants (see page 28).

**A Commerce command center is needed to best ensure communication and continuity of operations.** Several organizations and individuals tried to contact the Commerce Department on October 1 to provide expert assistance, most notably representatives from the Environmental Protection Agency and the interagency continuity of operations working group. Unfortunately, they were unable to reach anyone on that day because everyone had been evacuated from the building. Many of the external communication problems experienced could have been prevented if the Department had had a command center in operation. Such a center would operate through an emergency as a contact point for all departmental business, including dissemination of information to emergency personnel and the press. It would also serve as a control room for managing an emergency anywhere in the Department's worldwide operations (see page 33).

**To comply with regulations, an environmental program may be needed at Commerce.** During our inspection, several departmental officials and employees expressed concern that Commerce had to rely on the General Services Administration for advice and guidance on compliance with environmental regulations because Commerce does not have department-level staff who are knowledgeable about environmental regulations and compliance. While we did not assess the merits of having such departmental expertise, we did some limited inspection work to

determine what requirements there were for an environmental program at the departmental level. We determined that because Commerce does not have such a program, it may not be in compliance with a key executive order covering federal agency compliance with environmental regulations (see page 36).

On page 38, we offer recommendations to address our concerns.



In responding to our draft report, the Chief Financial Officer and Assistant Secretary for Administration stated that, where feasible, the Department has taken action on most of the issues identified in the report. We are generally satisfied that these actions meet the intent of our recommendations. In subsequent discussions with the Department, it also agreed to perform an assessment to determine what type of environmental program is needed at the departmental level. However, for our recommendation to improve sign-in/sign-out procedures, we request that the Department reconsider its proposed action. In addition, we are requesting that the Department provide us with an action plan detailing how it will implement its proposed corrective actions. Finally, based on additional information provided by the Department in its response to the draft report and in discussions with key officials, we have rescinded two recommendations that were in our draft report (see pages 6 and 20). Where necessary, we have made minor changes to the report and recommendations. The Department's complete response is included as Appendix B to this report.

## INTRODUCTION

Pursuant to the authority of the Inspector General Act of 1978, as amended, the Office of Inspector General performed an inspection of the events surrounding the October 1, 1999, fire and polychlorinated biphenyls (PCBs) accident in the Herbert C. Hoover Building, the Commerce Department's main headquarters facility in downtown Washington, D.C.

Inspections are special reviews that the OIG undertakes to provide agency managers with information about operational issues. One of the main goals of an inspection is to eliminate waste in federal government programs by encouraging effective and efficient operations. By asking questions, identifying problems, and suggesting solutions, the OIG hopes to help managers move quickly to address problems identified during the inspection. Inspections may also highlight effective programs or operations, particularly if they may be useful or adaptable for agency managers or program operations elsewhere. This inspection was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency. Our fieldwork was conducted from October through November 1999. During the review and at its conclusion, we discussed our findings with the Deputy Assistant Secretary for Administration, the Deputy Assistant Secretary for Security, and the Director, Office of Administrative Services.

## PURPOSE AND SCOPE

The purpose of this inspection was to assess the circumstances surrounding the October 1 fire; assess how the Department handled the emergency; and identify any lessons to be learned for the future. We also wanted to determine whether the electrical equipment involved in the accident was properly maintained, and whether proper signs warning of the presence of toxic materials were in place. In addition, we reviewed certain safety and security systems and procedures that reportedly did not work well during the incident, as well as how the environmental testing and cleanup process was handled. Finally, we assessed the Department's emergency response to the incident, including communications with outside assistance organizations and with Hoover Building occupants.

To perform our review, we interviewed 24 persons who had been exposed to the fire and/or chemical spill, including all 13 employees and contractors who had the greatest exposure to toxins (Group A), and 11 of the 18 employees and contractors who had secondary exposure (Group B).<sup>1</sup> (See page 3 for a discussion of how Groups A and B were determined.) We also spoke to 4 of the 8 employees and contractors who left the scene before the decontamination process. In addition, we conducted interviews with representatives of the General Services Administration (GSA), the Environmental Protection Agency (EPA), the U.S. Coast Guard, the

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<sup>1</sup> There were also 12 District of Columbia Fire Department personnel who were included in Group A.

Occupational Safety and Health Administration, the Federal Emergency Management Agency, the State Department, the District of Columbia Fire Department, the Executive Office of the Mayor (District of Columbia), the Simplex Time Recorder Company, Zurich Insurance, A&A Environmental, and Hydro Environmental, Inc. Within the Department, we interviewed officials in the Office of Administrative Services, the Office of Human Resources Management, the Office of Security, and the Office of General Counsel. We also spoke to representatives in the National Oceanic and Atmospheric Administration and the National Institute of Standards and Technology. Finally, we conducted interviews with several of the building's uniformed security guards.

## BACKGROUND

The Herbert C. Hoover Building has a centralized system that controls the ornamental clocks over the elevators and in the lobbies. Part of this system, which was manufactured by Simplex Time Recorder Company, is a network of 48 capacitors,<sup>2</sup> whose sole purpose is to send an hourly correction signal to the clocks to update the time. These capacitors, which were installed in 1968, were evenly divided among eight separate vaults (or rooms containing electrical equipment) in the building's basement. Recently, due to the clock correction signal interfering with newer electronic equipment in the building, building management staff requested that Simplex change the clock correction cycle to every 12 hours, or at 6:00 am and 6:00 pm. This change was made by Simplex personnel on the morning of September 29, 1999.

Two days later, on Friday, October 1, 1999, at approximately 6:00 am, a fire occurred in the wall-mounted electrical boxes that house the capacitors in two of the eight basement vaults. In addition, capacitors burst or leaked, but did not ignite, in four additional vaults. In all, 12 capacitors actually ruptured (between 1 and 3 capacitors in each of six vaults), and the remaining 36 swelled, but did not rupture.

One fire, in the north end of the building, was put out almost immediately by two contractors working nearby. The other fire, at the south end of the building, was put out by two building engineers at approximately 6:25 am. Upon verifying reports of smoke in the basement, a security guard activated the building's fire alarm at 6:17 am. This action served to automatically notify the District of Columbia Fire Department, which arrived at the Hoover Building at approximately 6:28 am. (See Appendix for a precise time line of events on October 1.)

Fire Department personnel soon suspected, because of the age of the capacitors and from discussions with building engineers and electricians, that there might be a hazardous PCB material contamination as a result of leakage of PCB-laden oil from the capacitors and exposure to the smoke that may have contained PCBs. So, as a precaution, at approximately 8:30 am, the

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<sup>2</sup> A capacitor is a device for storing an electrical charge. In its simplest form, a capacitor is two metal plates separated by a nonconducting layer called the dielectric. Oil was used as the dielectric in the capacitors involved.

Hoover Building was ordered closed for the day (and the weekend), and a door-to-door check of the building was performed by the uniformed security guards and Office of Security personnel to ensure that the building had been completely evacuated. The Fire Department asked building management personnel to identify the employees and contract personnel who were in the basement at the time of the fire and have them assemble in the Hoover Building's north courtyard, where mobile decontamination process equipment was being readied. Once the presence of PCBs was confirmed as almost certain by the Montgomery County, Maryland, Hazardous Materials Team at approximately 10:05 am, the District of Columbia Hazardous Materials Team began the decontamination process.

All employees and contract personnel who might have been contaminated were divided into two groups: A and B. Group A contained the 13 individuals who had spent a considerable amount of time in the smoke or who had stepped in or touched the dielectric fluid that had leaked from the capacitors. Group B contained 18 individuals who had limited exposure to the smoke. In addition, 12 Fire Department personnel fell into Group A, since they all had stepped in and/or touched the dielectric fluid. In all, 43 people were subjected to decontamination procedures, which began on the Hoover Building grounds and ended at nearby George Washington University Hospital. Unfortunately, at least eight employees and contract personnel who were in the basement at the time of the fire left the scene before the decontamination process started.<sup>3</sup> All were later contacted at home and told to report to the hospital or their personal physician for a checkup.

Generally, individuals in Group A had to relinquish all of their clothing, jewelry, and other items on their person at the time of the exposure, such as wallets or keys. Individuals in Group B were permitted to keep their clothing, jewelry, and personal items, but were instructed to give them a thorough cleaning when they got home. Individuals in Group A took showers in the Hoover Building courtyard and were then taken to George Washington University Hospital for follow-up observation and another shower. Individuals in Group B showered only at the hospital. Two employees were kept overnight at the hospital, while the others were released within hours.

With regard to the environmental assessment of the Hoover Building, GSA, building's owner, requested that one of its environmental contractors, Enviro-Management Inc., conduct emergency PCB sampling. Enviro-Management staff arrived on the scene at approximately 11:45 am on October 1. The results of this sampling, which started coming in around 7:30 pm, confirmed PCBs at extremely high concentration levels ranging from 100,000 micrograms/100cm<sup>2</sup> to 6 million micrograms/100cm<sup>2</sup>. The EPA's regulatory standard for PCB wipe samples from solid surfaces is 10 micrograms/100cm<sup>2</sup>. Enviro-Management's sampling

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<sup>3</sup> These employees and contractors left mostly because they were not told to stay. When the building was closed and staff were told to go home, they did. It was only through word of mouth that these people were identified for the decontamination process.

also showed that the PCB concentration of the water used in the decontamination process was 12 parts per billion. EPA's discharge limit applicable to discharges to waters of the United States is zero parts per billion.<sup>4</sup>

Recognizing that the PCBs would also need to be cleaned up (Enviro-Management only did sampling), the manager of the Hoover Building immediately hired an environmental cleanup firm, A&A Environmental. A&A staff arrived on the scene at approximately 11:00 am on October 1. The results of the wipe samples taken by both Enviro-Management and A&A Environmental between October 1 and October 3 enabled A&A staff to determine the boundaries of the contamination. Over the weekend, A&A staff cordoned off the contaminated areas and began the cleanup process.

Based on the results of the wipe samples, the volume of PCB material involved, the physical properties of PCBs, and the ventilation system in the basement, GSA recommended that floors 1 through 7 of the Hoover Building be reopened for regular business on Monday, October 4, advice that the Department heeded. In public announcements made on Sunday afternoon via the local media and a recorded telephone message, all Commerce employees were told to report to their Hoover Building offices for work on Monday, except for those who worked in the basement. Employees and contractors who worked in the basement were directed to report to the auditorium on Monday morning for further instructions. Unfortunately, due to a lack of coordination, no one appeared in the auditorium on Monday to provide the people waiting there with any information. Frustrated and angry, these people eventually left the auditorium and went home. On the advice of GSA, the Department reopened the basement on Tuesday, October 5.

A&A Environmental continued the cleanup process during the week after the accident and the next weekend. Once the contaminated areas were limited to the vaults and no longer in the hallways, A&A began performing cleanup mostly only on weekends, when things were quieter and most of the building's occupants were not at work. The last day of cleanup was December 3, 1999. The results of the wipe samples taken after this last round of cleaning showed all previously contaminated areas were testing at less than 10 micrograms/100cm<sup>2</sup>. Therefore, as of December 3, 1999, the Hoover Building is now considered fully restored to its pre-October 1, 1999, condition with regard to PCB contamination.

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<sup>4</sup> Anything above the EPA regulatory standards of 10 micrograms/100cm<sup>2</sup> for PCB wipe samples and zero parts per billion for PCB discharges to waters of the United States is considered harmful and is not permitted.

## OBSERVATIONS AND CONCLUSIONS

### I. Definitive Cause of the Fire Is Not Known

In reviewing the circumstances surrounding the October 1, 1999, incident, we tried to determine what caused the fire. While we were not able to determine the definitive cause, we can discuss the most probable cause.

As a first step in a search for the cause, we asked for maintenance records to ensure that the proper preventive maintenance had been performed on the clock system. In doing so, we found that the preventive maintenance that should have been performed by the building's electricians had not been performed as required. For some reason, the electricians did not have the central clock system in their inventory of operating equipment to perform preventive maintenance on. They believed that any maintenance on the clock system, as well as upgrades to the system, were to be handled by Simplex personnel. Regardless of any work performed by Simplex, however, the basic preventive maintenance, as prescribed in GSA's Preventive Maintenance Guide, should have been performed by the building's electricians. Therefore, we are recommending that the electricians immediately begin performing the required preventive maintenance on the remaining components of the building's central clock system. It should be pointed out that there is no evidence that the lack of preventive maintenance was a contributing factor to the fire.

Based on interviews with individuals who were working in the vicinity of the fire, the building's electricians and managers, and GSA personnel, the most probable cause of the October 1 fire was an overload of the capacitors stemming from the adjustment Simplex personnel made to the clock system on the morning of September 29. According to Simplex personnel, when the clock correction signals were sent hourly, the signal was approximately three seconds long. When the signal was changed to twice daily, it would have lasted between six and eight seconds. From our discussions with Simplex personnel, we know that the voltage for both the hourly and twice daily clock correction cycles was the same, and from the building managers, we know that there was no power surge in the building's electrical systems that morning. Because the capacitors were over 30 years old and had been accustomed to a short signal every hour, building managers and GSA have speculated that the longer signal was more than the capacitors could handle. Building managers and GSA personnel surmise that the clock correction signals sent Wednesday at 6:00 pm, Thursday at 6:00 am, and Thursday at 6:00 pm served to slowly heat up the capacitors. Their theory is supported by the fact that there were numerous reports of smoke prior to the 6:00 am update signal on October 1 (at both ends of the building) and some, but not all, people working in the area reported a "funny smell" the day before the fire. They believe that the 6:00 am update signal on Friday served to finally overload the system. In some vaults, they surmise that this overload probably caused capacitors to swell and leak or burst, and in other vaults, it probably caused a fire.

It should be noted that no “official investigation” of the October 1 incident has been done and none is planned for the future. Because the Hoover Building is owned by the federal government, the Fire Department did not perform an investigation as to the cause of the fire. According to the Fire Department’s investigator, that responsibility lies with GSA and/or the Department of Commerce. GSA and the Department decided that getting the contaminated basement areas cleaned was more important than determining the precise cause of the fire. As such, the Department directed A&A Environmental, the clean-up contractor, to quickly remove all the electrical equipment involved in the accident. This equipment included all 48 capacitors, whether or not they had leaked; the wall-mounted electrical boxes that held the capacitors; and all the electrical wiring leading into the boxes. Because the equipment was removed in the week after the accident and destroyed through incineration approximately three weeks later, there was no opportunity for a forensic engineer to determine the precise cause of the fire.

An environmental contractor hired by Simplex’s liability insurance company to help assess the cause of the fire was unable to make such an assessment when he visited the Hoover Building in mid-October. By that time all of the related equipment had been removed, but not yet destroyed. According to the contractor, he told building managers that it would be a good idea to mark the disposal drums containing the contaminated capacitors, electrical boxes, and connected wiring so that a forensic engineer, outfitted in a protective suit, could later perform an assessment as to the cause of the fire. According to building managers, the contractor never told them this. Regardless, it would have probably been prudent for the Department to retain the electrical equipment, perhaps at an off-site storage area approved to store PCB-contaminated materials, for subsequent analysis by a forensic engineer. From a “lessons learned” perspective, particularly for GSA, which owns other buildings that contain identical clock systems, it would have been helpful to know what caused the fire.



In responding to our draft report, the Chief Financial Officer and Assistant Secretary for Administration stated that preventive maintenance on the central clock system is no longer necessary. Specifically, the preventive maintenance was only required on the electronics and mechanisms for the clock adjustment, which were removed along with the capacitors. According to building managers, the remaining components of the building’s central clock system do not require preventive maintenance. Given this information, we rescind our recommendation that the electricians immediately begin performing the required preventive maintenance on the building’s central clock system.

## **II. Presence of PCBs in Building Capacitors Did Not Violate Laws or Regulations, But Other Safety Issues Involving PCBs in the Building Need to be Addressed**

No regulations were violated in the use and marking of the PCB-laden capacitors involved in the October 1 fire in the Hoover Building. The capacitors were installed in 1968 and according to 40 C.F.R. 761.2, a capacitor manufactured before July 2, 1979, should be assumed to contain PCBs. However, according to 40 C.F.R. 761.20, capacitors of this vintage containing less than three pounds of dielectric fluid are permitted to be used as long as they are not leaking. There is no evidence that the capacitors were leaking before October 1. In addition, PCB capacitors containing less than three pounds of dielectric fluid are not required to be marked or labeled if they were manufactured before January 1, 1979.

Despite the fact that the PCB-containing capacitors were legally permitted and did not have to be marked, the danger of having unmarked PCBs is now well documented as a result of the October 1 incident. The incident was made a great deal more serious because no one knew that PCBs were involved until hours after the fire started. In fact, because of misleading signs on the doors to some of the vaults in the basement, the firefighters at first thought that there were no PCBs in the area.

In addition, there are remaining PCBs in the Hoover Building that should be documented and removed, if necessary. If the PCBs cannot be removed, any equipment that contains PCBs should be marked as such. In addition, there is a requirement to mark vaults that have PCB-contaminated floors resulting from the removal of PCB transformers in the late 1980s. We found that most of these vaults were not marked and those that were had misleading signs, as noted above. Finally, the protective footwear required to work in these PCB-contaminated vaults is not being provided to people who have to perform work in there, as required by GSA guidance.

### ***B. Remaining PCBs need to be inventoried and marked***

Building managers and GSA are well aware that there are other PCBs in the Hoover Building, but these PCBs are not well inventoried or marked. For example, 80 percent of the fluorescent light ballasts in the building contain very small amounts of PCBs, although it would be impractical to mark them as such. As these are replaced for various reasons, the replacement ballasts are being labeled as being PCB-free. In addition, capacitors very similar to those involved in this accident are in the floodlights that illuminate the building exterior at night and are not marked.

Fire Department personnel and the employees and contractors who put out the fire told us that had the capacitors been marked as containing PCBs, their reaction would have been very different. The employees and contractors who put out the fire or tried to help clear smoke all said that they would have immediately evacuated the building and left the fire fighting to the professionals. Fire Department personnel stated that they would have immediately known to wear protective suits and taken other precautions, such as wearing their masks and protective

footgear. Clearly, had the capacitors been marked, the October 1 incident would not have been nearly as serious. It is important to note that there was no apparent intentional deception on the part of building managers with regard to the capacitors not being marked because they were unaware that the capacitors contained PCBs.

To mitigate the impact of future PCB accidents, we believe it would be prudent for building managers, in conjunction with GSA, to conduct a thorough inventory of remaining PCBs in the building and develop a plan to remove them, if necessary, or adequately contain them, in the case of the PCB-contaminated floors (see next two sections). If the PCBs cannot be removed, any equipment that contains them should be marked as containing PCBs. Because it would be impractical to mark all of the light ballasts, all appropriate personnel should be made aware that if a light ballast is not marked as PCB-free, it should be assumed to contain PCBs.



In responding to our draft report, the Chief Financial Officer and Assistant Secretary for Administration stated that the Department completed a physical survey of potentially PCB-containing operating equipment in the Hoover Building and reported the results to GSA on January 16, 2000. Further, the Department intends to work closely with GSA to create a plan to address the PCB-containing equipment. These actions are a good first step toward meeting the intent of our recommendation. We would appreciate the Department providing us a copy of the action plan it intends to develop, in conjunction with GSA, to address this issue.

***C. Contaminated vault floors need to be retested and appropriate warning signs posted***

In the late 1980s, GSA undertook a project to remove the large PCB transformers from the Hoover Building, as required by 40 C.F.R. 761. Because the dielectric fluid from these PCB transformers had leaked onto the vault floors over the years, the floors were also contaminated. In fact, the fluid had seeped several feet into the concrete. After the PCB transformers were removed by GSA in 1989, the floors were cleaned to the extent possible and then an epoxy sealant was applied to help contain the PCBs. However, in 1992 and 1993, testing showed that the sealant did not completely contain the toxic materials, and GSA determined that protective footgear should be worn by personnel working in the vaults to ensure that PCBs were not tracked outside the vaults.

We were told that in 1993 GSA placed signs on the eight vault doors warning of contamination and the need to wear protective footgear (see Exhibit 1 on page 9.) However, when we inspected the vault doors, we found that the warning sign was present on just two of the eight vaults. GSA and departmental officials told us that sometime in the last year or two, GSA undertook a project to replace the doors in the building. When the old doors were removed, the warning signs were apparently not moved to the new doors. GSA officials were not certain why the signs were not moved to the new doors, but they pledged to put up new signs as soon as possible. Warning

signs for the vaults are the responsibility of GSA. The Department, not wanting to wait for GSA, designed new signs and posted them on all the affected vaults on January 14, 2000.

**Exhibit 1: Warning sign that was posted on two of the eight vaults with contaminated floors**



There were also problems with both the wording and visibility of the signs that were posted at the time of the fire. The Fire Department took particular exception to the signs' wording and found it to be very misleading. In quickly reading this sign on two of the eight vaults, Fire Department personnel assumed that there were no PCBs in the rooms, which was inaccurate. The signs, while technically accurate, were not helpful in an emergency situation. The large print, stating that there are no PCB transformers, tended to overshadow the smaller print warning of contamination and of the need for protective footgear.

The new signs that were posted on January 14, 2000, are an improvement over the old ones in that they better highlight the contamination factor and de-emphasize the fact that the transformers are PCB-free. However, the new signs now say that the vault floor "may be contaminated." It is our understanding that, due to the passage of time, cognizant GSA personnel believe that the vault floors may no longer be contaminated. However, no testing has been done to verify this assumption. Therefore, we are recommending that the Department work with GSA to have the vault floors retested. If the vault floors are still contaminated, then the Department should consider resealing them with an epoxy sealant or other protective material to eliminate or further minimize the spread of contaminants from the floors. Once the contamination factor of each vault is known, the Department, in conjunction with GSA, should

remove the current warning signs and replace them with either a sign that simply states that the vault contains no PCB transformers or a warning sign that stresses the contamination factor and the need for protective footgear.

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The Chief Financial Officer and Assistant Secretary for Administration's response to our draft report stated that the environmental cleanup contractor has provided the Department with an estimate of \$45,000 to re-test the vault floors. In addition, the Department is working with GSA to address our recommendation. We would appreciate the Department providing us with an action plan outlining how it, in conjunction with GSA, intends to address our recommendation.

***D. Need for protective footgear should be addressed***

Because the PCBs could not completely be removed from the concrete vault floors during the 1989 transformer removal project, protective footgear is to be used to limit or eliminate the tracking of the PCBs to areas outside the vaults. However, during our inspection of the contaminated vaults, we saw neither protective footgear for people working inside the vaults nor the required disposal drums for the used footgear. According to GSA's 1993 guidance (after the floors were tested and found to be still contaminated), protective footgear should have been purchased and stored inside the entrance to the vault. In addition, an approved 55-gallon drum should have been placed inside the vault entrance for the disposal of the footgear. We know that on October 1 and in the days that followed, many people walked in and out of the vaults without using protective footgear, thereby creating the possibility that PCBs from the contaminated floors were tracked into the rest of the building. Also, in speaking to the building management staff, in particular the electricians and plumbers who work in the vaults fairly regularly, they have not been provided with protective footgear in many years. Therefore, we are recommending that building managers immediately make protective footgear and disposal drums available to staff who work in the contaminated vaults, until such time that the vaults are tested and found to be free of contamination.

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The Department's response to our draft report stated that although it is GSA's responsibility to provide protective footgear in the vault rooms, the Department has purchased footgear and disposal bags and placed them in the vaults and adjoining rooms. Although our recommendation had suggested that disposal drums be used as per GSA's original 1993 guidance on the subject, GSA has now informed the Department that disposal bags are acceptable as a disposal receptacle inside the vaults for the used protective footgear. However, when the disposal bags are removed from the vaults, they must be disposed of using an approved disposal drum. In speaking to the building managers, they told us that it was their intention to dispose of the bags in this way. Therefore, the Department's actions meet the intent of our recommendation.

### **III. Building Safety Issues Were Highlighted by the Fire**

An emergency often highlights problems in the systems and processes designed to protect human life. The October 1 incident in the Hoover Building was no exception. For example, the fire alarm rang for only nine minutes because someone turned it off prematurely. Unfortunately, there is no departmental policy covering who is allowed to turn off a fire alarm and when it is appropriate to do so. Also, the fire alarm room is routinely left unlocked, allowing easy access to the central control panel for the fire alarm system. The door-to-door search of the building on October 1 underscored the need for a public address system to communicate with building occupants in an emergency. In addition, there were problems with some of the building's fire and smoke alarms during the incident. Further, a stairwell designated as an exit route was locked at the first floor level, which constitutes a serious safety violation. Similarly, at least one exterior door was not unlocked and was not usable for exit from the building when the fire alarm sounded. We also found that the doors to the basement vaults, which contain critical electrical equipment, were not routinely locked. Finally, many people who evacuated the building mistakenly believed that they should exit through the main entrance since they thought that was the only one open at the time the alarm sounded. In fact, all doors in the building should be open for egress at any time, and doors should be utilized in an evacuation situation. It is our hope that the Department will take swift action on the safety issues highlighted by the October 1 incident to make the Hoover Building safer for its occupants.

#### ***A. Fire alarm was turned off prematurely***

According to computerized records, on October 1, 1999, the fire alarm was pulled in the Hoover Building at 6:17 am and was turned off at 6:26 am. Therefore, it rang for a total of nine minutes. Unfortunately, the short duration of the alarm gave some people in the building the impression that the sounding of the alarm was in error or was just a test, so they did not evacuate. Of course, anytime the fire alarm sounds, occupants of the building need to take it seriously and evacuate immediately. However, with no other system to clear the building, the fire alarm is the main tool to accomplish this goal, and it should have remained on longer to convince as many people as possible to exit the building.

We know that the fire alarm was turned on by a security guard. He responded to the area where there had been reports of smoke in the basement at the north end of the building. He confirmed that the fire had been put out, but he observed a great deal of smoke. He returned to the security guard office on the first floor and called the GSA Control Center, which is a 24-hour command center for all GSA buildings in the Washington, D.C., metropolitan area. Control Center personnel told him to pull the fire alarm just as a precaution, which he did at a pull station just outside the guard office.

Unfortunately, it is unclear who turned the alarm off and why. According to GSA fire alarm shop personnel, the fire alarm did not malfunction and it was definitely turned off by a person. We found that there is no departmental policy covering who is authorized to turn off a fire alarm and when it is appropriate to do so. In addition, there are no records on who was trained in operating the fire alarm system.

We were unable to determine who turned off the alarm.<sup>5</sup> No one admitted to us either turning off the alarm or seeing someone do so. In conducting our review, we found that the room containing the fire alarm control panel is not always locked. Personnel in the GSA fire alarm shop told us that they often find the room unlocked when they come into the building to perform maintenance on the system. In random checks in recent weeks, we also found it frequently unlocked. We therefore assume that the door may not have been locked on the morning of October 1, 1999, and that anyone could have walked into the room and turned off the alarm.<sup>6</sup> The security guard who was posted next to the fire alarm room told us that he did not observe anyone going into the room around the time the alarm was silenced. However, he was busy getting people out of the building, answering questions, and ensuring that no one entered the building, so it is possible that someone went into the room without him noticing.

To prevent the problem of the fire alarm being turned off prematurely in the future as well as ensuring someone cannot inappropriately disable the system, we are recommending that the Department better control access to the fire alarm control room. For security reasons, this door should be locked and only individuals with a need to enter the room should be allowed access. Signs should also be posted to remind people to lock the door when they exit the room. In addition, a departmental policy should be developed that explicitly states who has the authority to turn off a fire alarm and when it is appropriate to do so. This policy should be disseminated to all building management, the Office of Security, and security guard staff and be prominently posted on the fire alarm control panel itself.



The Chief Financial Officer and Assistant Secretary for Administration's response to our draft report stated that in January 2000, the lock on the door to the fire alarm control room had been changed and keys are only being issued on approval of building management. In addition, a sign has been posted on the door to remind people to keep the door locked. With regard to a policy

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<sup>5</sup> The fire alarm is not particularly difficult to turn off. There is one master button to silence the alarm. However, the fire alarm's records showed that several buttons were pressed before the correct button to silence the alarm was pressed.

<sup>6</sup> According to the GSA fire alarm technician, when he arrived at 7:30 am on October 1, the door was unlocked.

statement on who has the authority to turn off a fire alarm and when it is appropriate to do so, the Department's response to our draft report stated that it agrees with the necessity of issuing such a policy. Because the fire alarm system is under GSA's purview, Departmental officials intend to work with GSA to develop a policy statement and disseminate it as recommended. The actions taken and planned by the Department meet the intent our recommendations. However, in its action plan, we would like the Department to address when the policy statement will be completed and disseminated to the appropriate personnel. We would also appreciate receiving a copy of the policy statement when it is complete.

***B. Public address system is needed***

Because the Hoover Building does not have a public address system, senior or safety officials have no efficient way to communicate with building occupants in an emergency. Such a system would have been extremely helpful on October 1, 1999, to help get everyone out of the building, particularly since the fire alarm was silenced prematurely. As a result of this deficiency, the security guards and Office of Security staff had to conduct a time-intensive (nearly 30-minute) door-to-door search, which could have put them, as well as the persons they were seeking to evacuate, in unnecessary danger.

As a result of the fire, the Director of the Office of Administrative Services requested funding to install a public address system, but the request has not yet been approved. Personnel in the Office of Administrative Services are currently determining how much such a system might cost. An initial estimate of \$250,000 was received from the contractor who recently installed a public address system in the Department of Housing and Urban Development headquarters building, but Administrative Services personnel are working to identify additional contractors who might be able to provide a similar or scaled-down version at a lower cost. We believe that installation of a public address system is an important safety issue; we urge the Department to identify funding and move as quickly as possible to acquire and install such a system.



The Department's response to our draft report stated that it agrees that a public address system would enhance building security and safety in the event of a similar emergency. As such, the Department is discussing the scope of such a system with GSA in the context of additional renovations intended for the Hoover Building. It is our understanding that these renovations will likely not occur for at least five more years. Therefore, we would appreciate the Department assessing whether a more near-term solution might be possible and addressing this issue in its action plan for this report.

**C. Fire and smoke alarms experienced problems**

According to our interviews and information obtained from building management, two issues involving the fire and smoke alarms arose during the October 1 incident. First, several employees working in the NOAA print shop, located in the south end of the basement, reported that the fire alarm in that area went on and off intermittently before eventually turning off altogether. The fire alarm should ring continuously once activated.

The second issue involved the smoke alarm located at the bank of elevators in the middle of corridor 6. Despite very heavy smoke in this area, the alarm did not activate. This is particularly troubling because the functionality of this particular smoke alarm had been checked by building managers just one week before the incident. The smoke alarms, which are only located at the elevator banks in the building, send a signal to the elevators to return to the first floor, open the doors, and keep them open until a technician returns them to normal operating mode. Also, the smoke alarms do not activate the central alarm, but they do trigger a call to the D.C. Fire Department. Clearly the fire and smoke alarms need to be running properly to ensure the safety of building occupants. Therefore, we are recommending that building managers, in conjunction with GSA, determine what caused the fire and smoke alarms to malfunction. Corrective measures should be taken to ensure that the problems do not recur.



The Department agreed with our recommendation in its response to our draft report. GSA tested all the smoke alarms on February 8, 2000, and the fire alarm system, including the audio visual devices, was tested on February 17 and again on February 23 and 24, 2000. The smoke alarms were found to be fully functional, but the tests of the fire alarm system revealed some problems with the power supplies that feed the audio visual devices. Apparently, the power supplies are not strong enough to handle the number of audio visual devices on them. GSA is working on a couple of options in consultation with the company that originally designed the system. With regard to the smoke alarm, we had difficulty reconciling the numerous reports we received of heavy smoke in corridor 6 with the fact that the recently-tested smoke alarm did not activate. However, given the tests performed both before and after the October 1 fire showing that the alarm was functional, we have to agree with the Department's conclusion that not enough smoke moved from the hallway to the elevator bank area to activate the alarm. Therefore, the Department's actions meet the intent of our recommendation. However, in its action plan, we request that the Department address the status of the repairs to the fire alarm system.

**D. Stairwell exit was locked**

According to the two contractors who put out the basement fire at the north end of the building, the stairwell exit from the basement, located in the middle of corridor 6, was locked at the first

floor. They tried to exit via this route and had to return to the basement, and into the heavy smoke, to find another stairwell exit. We understand that the Occupational Safety and Health Administration, which performed an inspection after the October 1 incident, also observed this safety violation and has notified the Department that it must fix this problem immediately. As of January 14, 2000, the problem had not been fixed.

For safety reasons, all stairwell exits must provide egress at all times. Apparently the expansion of the Child Care Center last year necessitated locking the first floor door for security purposes. However, a new door was not installed on the first floor level that would allow egress in an emergency. The Department has stated that it will install such a door and affix an alarm to the door to alert the Child Care Center management that the door has been opened. In addition, the door will be marked as being for "Emergency Exit Only." We are recommending that the Department install the new door, alarm, and sign as soon as possible to ensure egress at the first floor for this stairwell.

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In responding to our draft report, the Chief Financial Officer and Assistant Secretary for Administration stated that this door has been fitted with an emergency egress panic bar which will provide for egress to the first floor and to an exit from the building in the event of a future emergency. In addition, the door was marked with directions for operating the panic bar in an emergency. The Department's actions meet the intent of our recommendation.

***E. At least one exterior door did not open***

According to officials in the Office of Security, all exterior doors on the Hoover Building are available for exit from the building at any time. If there is not a fire or other emergency, an alarm will sound if an unguarded door is opened. However, in a fire or other emergency, building occupants should use the closest exterior door to exit the building and not be concerned about triggering an alarm. Unfortunately, during the October 1 incident, at least one exterior door was not available for exit. According to a contract elevator technician working on the elevators at the 15<sup>th</sup> Street and Pennsylvania Avenue corner of the building (the intersection of the 7 and 8 corridors), when the fire alarm sounded, he tried to exit on the first floor at that corner and found the door to be locked. He tried it several times before finding another door through which to exit.

Having an exterior door that does not open in an emergency is a serious safety and security hazard that should immediately be fixed. Therefore, we are recommending that the Office of Security take appropriate corrective actions to fix the door that did not open. Further, all

building exterior doors should be checked routinely to make sure they will open during an emergency. If necessary, repairs should be made to ensure that all the doors are working properly.

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The Department's response to our draft report was unspecific about any corrective actions taken to fix the door that did not open. However, the response did state that on occasion doors become misaligned and unable to open due to the age of the Hoover Building. To deal with this problem, on a monthly basis, Office of Security staff inspects all of the doors in the Hoover Building and reports any problems with the doors to building management for corrective action. In its action plan, we request that the Department confirm that the door at the 15<sup>th</sup> Street and Pennsylvania Avenue corner of the building (the intersection of the 7 and 8 corridors) has been repaired and is currently available for exit from the building in the case of a future emergency.

***F. Vault doors were not locked***

During our inspection, we made several visits to the vaults in the Hoover Building's basement to assess both the cleanup and security situation. Despite the fact that the basement vaults contain critical electrical equipment, we found that the vault doors were not routinely locked. Per 29 C.F.R. 1910.303(h)(2), doors to electrical vaults containing circuits or equipment which exceed 600 volts must be kept locked at all times. However, during an OIG visit to the vaults in mid-October, six of the eight vaults containing high-voltage transformers were unlocked. Building managers locked the two vaults where the fire occurred only after we expressed concern about their being unlocked. However, in early January, we found that at least four of the vaults were still unlocked.

For many reasons, chiefly safety for the building's occupants and protection against sabotage, these vaults should always be locked. Therefore, we are recommending that procedures be put in place to ensure that the vaults containing high-voltage transformers are routinely locked and only personnel with a need to enter the vaults are issued keys.

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The Department, in its response to our draft report, stated that it has placed signs on all the vault doors that state the doors must remain locked at all times. In addition, building management instituted procedures for its staff to physically check the locks on the vault room doors three times a day. During these daily checks it was discovered that several doors had inoperable locks. These locks have been repaired and now work properly. The Department will reevaluate this daily procedure in mid-March and determine whether the problem has been corrected. The Department's actions meet the intent of our recommendation.

**G. Evacuation plan needs to be disseminated and fire drills held**

The Department has an emergency evacuation plan in place for the Hoover Building. According to the plan, during standard business hours,<sup>7</sup> the sounding of a fire alarm triggers the creation of a supporting organizational structure to implement a building evacuation. This structure includes creating a command center and assigning monitors to locations inside and outside the building to track and help ensure the progress and success of the evacuation. Before and after standard business hours, occupants of the building are responsible for evacuating themselves through the nearest stairway and exiting the building at the ground level. Because the October 1 fire occurred before standard business hours, building occupants were expected to evacuate themselves and were not able to rely on the supporting organizational structure for direction and guidance.

In our discussions with occupants of the building at the time of October 1 incident, we learned that most of them mistakenly believed that the only door that they could exit through was the alternate main entrance (located at the intersection of the 0 and 3 corridors). They believed that all the other doors were locked. In fact, all exterior doors should be available for exit in an emergency. This misunderstanding resulted in most of the building occupants at the time of the fire exiting through just one door. The security guard posted at that location confirmed that he saw many of the people who had entered at his location exit there after the fire alarm sounded. Had there been more people in the building at the time, having large numbers of them attempting to exit through a single door could have created a very serious safety situation.

The confusion over which door to exit through when a fire alarm sounds likely occurred because there has been inadequate dissemination of and training on the emergency evacuation plan. In fact, most people we interviewed had never seen the emergency evacuation plan and were not aware of its existence. In addition, just one fire drill has been conducted within the last five years to practice an emergency evacuation of the building. This drill was held in early 1997 to test the new fire alarm system.

Occupants of the Hoover Building need to be better informed about the contents of the evacuation plan. Therefore, we suggest that the Department widely disseminate the emergency evacuation plan or clear guidance outlining evacuation steps and responsibilities based on the plan. The Department should then follow up with regular fire drills to ensure that employees remain familiar with the building's evacuation procedures. As part of this education effort,

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<sup>7</sup> Defined as 8:30 am to 5:00 pm, Monday through Friday.

building occupants should also be told that all doors in the building should be open for exit during an emergency and all doors should be used in an evacuation.



In responding to our draft report, the Chief Financial Officer and Assistant Secretary for Administration stated that the Offices of Security and Administrative Services will partner to implement this recommendation. A fire drill of the Hoover Building was conducted on February 11, 2000. And, on February 28, 2000, an e-mail message was sent to all building occupants stressing the importance and seriousness of responding properly to a fire alarm. We are pleased that the Department has begun to educate the Hoover Building's occupants on evacuation procedures. However, we had hoped that the Department would do some education on the contents of the evacuation plan and the fact that all doors in the building should be used in an evacuation. In discussions with building managers, they indicated to us that such an education process would precede any future fire drills. Therefore, we are requesting that the Department, in its action plan, outline its arrangements to (1) educate building occupants on the emergency evacuation plan, (2) update and train the list of monitors and other participants in the organizational structure that supports and implements a building evacuation, and (3) create a schedule for future fire drills.

#### **IV. Building Security Concerns Need Attention**

In addition to safety issues, the October 1 incident in the Hoover Building also highlighted concerns with the building's security systems and procedures, especially during an emergency. For example, although the building had been evacuated, employees were able to enter through the key card entrances off the north and south courtyards. In addition, the sign-in/sign-out logs, which are used before and after normal business hours, are not an accurate representation of who is in the building, as not all people are required to sign in and sign out. Based on these observations, we are recommending improvements to address our concerns about building security.

##### **A. Key card doors remained accessible**

On the morning of October 1, employees who had permits to park in the north and south courtyards of the Hoover Building and use the key card door entrances off those courtyards were initially able to enter the building even though the building had been evacuated. For example, one employee arrived at 6:45 am (after the fire alarm had been silenced), reported to his office, and worked for over 90 minutes before the security guards found him during the door-to-door search. Unfortunately, because he was exposed to smoke in the hallways as he exited the building, the employee had to go through the decontamination process. It was not until the seriousness of the situation was determined, at around 8:00 am, that the Office of Security took measures to prevent employees from entering either the courtyards or the courtyard entrance doors.

It is troubling that at least one employee, and there may have been others, could enter the building after it had been evacuated and as a result be needlessly exposed to a dangerous situation. This problem could have been prevented if the key card doors had not been accessible in an emergency. Since the fire, the Office of Security has installed a new key card access system for the Hoover Building. It is our understanding that with this new system, the Office of Security has the ability to centrally disable the key card access system such that the doors are locked from the outside, but remain open for exit from the building. Therefore, we are recommending that the Office of Security develop procedures to ensure that, in the event of a building evacuation, the key card access system is immediately disabled so that entrance through the key card controlled doors is not permitted.

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The Department, in its response to our draft report, stated that the current function of the key card doors is considered to be adequate for normal and emergency situations in conjunction with the building's audible alarm system. Because the Department is taking steps to ensure that the alarm is not turned off prematurely in the event of future emergencies, it is taking no action on this recommendation. In further discussions with Office of Security personnel regarding this

issue, they stated that, per GSA fire and safety requirements, the key card doors must remain accessible from the outside for emergency personnel, escorted by Office of Security personnel with a key card. Therefore, it would not be practical to centrally disable entry through the key card doors. In addition, there are six exterior doors accessible by a key card and assigning a security guard or Office of Security staffer to each one just to ensure that no one gains entry through one of the doors is also not practical because that manpower could be better utilized elsewhere during an emergency situation. Given this additional information, we rescind our recommendation that the Office of Security develop procedures to ensure that, in the event of a building evacuation, the key card access system is immediately disabled so that entrance through the key card controlled doors is not permitted

***B. Accurate sign-in/sign-out logs are needed***

Any persons entering the Hoover Building before 6:30 am or after 6:30 pm are required to sign in and/or sign out using the logs kept at the main building entrance, unless they use the key card door at one of the two courtyards or enter through either the 14<sup>th</sup> or 15<sup>th</sup> Street service ramp entrances. These logs are maintained by the Office of Security through the security guard force. The purpose of the logs is to provide for increased security before and after normal business hours, as well as provide a list of who is in the building should there be an emergency.

The OIG requested and received from the Office of Security the sign-in/sign-out logs for October 1 to determine who was in the building at the time of the fire. However, in reviewing the logs, it was evident that many people who were known to be in the building at the time of the fire were not shown on the logs. For example, the two contractors who put out the fire in the north end of the basement were not listed in the logs. They told us that they entered the building shortly before 6:00 am through the alternate main entrance (intersection of the 0 and 3 corridors). At this location, they should have been required to sign in. In addition, all of the building's engineers, plumbers, and electricians who arrived early that morning and were involved with the incident were not on the logs. We asked a few of the building's engineers, plumbers, and electricians why they are not required to sign in and they replied that because the security guards know who they are, they are not asked to sign in. In addition, some of the engineers, plumbers, and electricians enter the building through the 14<sup>th</sup> or 15<sup>th</sup> Street service ramp entrances where no logs are maintained.

For the sign-in/sign-out logs to be of any value, they need to be taken seriously. Permitting people to enter the building without signing in is a breach of security procedures and needs to be corrected. Therefore, we are recommending that the Office of Security take corrective action to ensure that persons who enter the building before and after normal hours, using a guarded entrance (including the 14<sup>th</sup> or 15<sup>th</sup> Street service ramp entrances), are required to sign in and sign out on the logs. The Office of Security should also ensure that non-Commerce employees

(including contractors, maintenance employees, and delivery personnel) are required to sign in and out at all times when entering or leaving the building.

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In responding to our draft report, the Chief Financial Officer and Assistant Secretary for Administration stated that procedures are currently in place with the Hoover Building's guard force to ensure that all personnel, except those who have key card access, who enter or depart the building during non-business hours sign in and sign out. Periodic checks of the access control logs are to be made by Office of Security personnel to ensure that these procedures are being followed. Thus, the Department concluded that no action was needed to fulfill our recommendation. We strongly disagree and urge the Department to reconsider its position. Clearly the procedures for the sign-in/out logs were not working or the problems we identified during our review would not have occurred. The Department's response does not address the problem of logs not being kept at the ramp entrances. In addition, it is not clear how periodic checks of the access control logs will help ensure that the security guards are requiring (1) all persons who enter the building during non-business hours and (2) non-Commerce employees (including contractors, maintenance employees, and delivery personnel) who enter the building at any time, to sign in or out using the logs. Therefore, we are requesting that the Department revisit this issue in its action plan.

## **V. Inaccurate Information and Noncompliance with Regulations Led to Problems During the Environmental Cleanup**

Faulty assumptions about where smoke traveled and where people walked led the Department to make some poor decisions during the cleanup process. As a result, air tests were not conducted immediately, and areas that may have been contaminated were not tested or cleaned for over three weeks. During the cleanup process, which began almost immediately after it was determined that PCBs were present in the dielectric fluid, decisions were made about what tests to perform and where to clean up with little or no input from eyewitnesses. While we have no reason to conclude that the building is currently not clean and safe for occupancy, better information would certainly have led to better decision-making regarding the October 1 incident. For example, GSA and the Department decided to reopen the building before air tests were performed. This decision was based partly on faulty information about the extent to which smoke spread beyond the vaults. Incorrect assumptions were also made about where people walked, and possibly tracked contaminants, and where smoke might have traveled without talking to the individuals who may have tracked the contaminants and/or witnessed the smoke. Finally, in addition to the problems associated with making decisions based on inaccurate assumptions, environmental regulations were not followed with regard to securing the cleanup areas. Specifically, the vaults where the PCBs leaked remained unlocked and no warning signs were posted despite regulations requiring such measures.

### ***A. Air tests were not performed before reopening building***

The Department, lacking technical expertise in the area of environmental issues, relied on GSA's expertise and recommendation to reopen the building before air tests were performed. GSA made this decision based partly on their faulty assumption that the smoke was contained in the vaults and immediately exhausted to the outside. Thus, they assumed that insignificant amounts of smoke, which may have contained PCBs, spread beyond the vaults and into the rest of the building. This was not the case. We were able to determine that the two fires created smoke for at least 40 minutes and, in the case of the fire at the north end of the building, the smoke did not dissipate quickly. Therefore, the smoke was not contained in the vaults.

In the case of the vault at the south end of the basement, significant smoke was reported in the 0 and 2 corridors for about 40 minutes, although it dissipated quickly once the high-powered fan<sup>8</sup> was turned on by the two building engineers who put out that fire. The fire in the north end of the basement also put out smoke for about 40 minutes, but for some reason, this fire produced more smoke and entire hallways were obscured. According to our interviews, smoke was

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<sup>8</sup> The exhaust fans in the basement vaults are thermostatically controlled and only come on automatically only if there is significant heat, which was not the case with this fire.

reported being seen at 5:50 am and despite the use of fire extinguishers by the two contractors at about 6:00 am, the electrical box and its contents continued to smolder and create smoke until the Fire Department doused it again around 6:30 am. The reason the smoke did not quickly clear from this vault was because building engineers could not get the small exhaust fan in the vault to come on. Apparently the circuit breaker had tripped, so a building engineer spent about 20 minutes jury-rigging the fan to make it come on, which it eventually did. In the meantime, two building plumbers turned on the exhaust fan in the carpenter's shop at the other end of the building. This had the effect of pulling smoke down the 6<sup>th</sup> corridor, toward the 8<sup>th</sup> corridor, and out of the building. Eventually, at around 6:45 am, a second fan, provided by the Fire Department, was placed in the window of the north vault to help remove the smoke.

We were also able to determine that the smoke was not just restricted to the basement hallways. There were several reports of smoke on several of the upper floors. The smoke likely spread to the rest of the building through the elevator shafts, as well as through the heating, ventilation, and air conditioning (HVAC) system. The Hoover Building's HVAC system has staggered start times, but the entire system is running by 5:15 am, according to building engineers. Therefore, the HVAC system was running at the time of the fire. A quick-thinking engineer did turn off the ventilation system fans, but it was close to 6:45 am when he did this, nearly an hour after the first report of smoke. Therefore, it is possible that some of the smoke was re-circulated in the building through the ventilation system.

While there is no specific guidance on when air tests should be performed, given the fact that smoke spread throughout the building, it would have been prudent for GSA and the Department to conduct air tests before reopening of the building. Unfortunately, air tests (for PCBs only) were not performed until October 5, four days after the fire, one day after the building (floors 1-7) was reopened, and the day the basement was reopened. The tests were performed only after employees who work in the basement and representatives of the Commerce Child Care Center, which is located on the first floor, very close to the north vault fire, demanded assurances that the air was safe to breathe. The air test results, which were not known until October 12, showed that trace amounts of PCBs were in the air, but at levels well below the permissible exposure limits set by OSHA.<sup>9</sup> Because of the very low levels of PCBs in the air at the time of the tests, the results proved to be inconclusive as to whether PCBs had been released into the air via the smoke from the October 1 fire or whether the PCBs were already present in the building's air. Had the air tests been performed sooner, such as on the day of or the day after the fire, the results might have shown whether PCBs were released into the building via the smoke.

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<sup>9</sup> OSHA's permissible exposure limits are based on what is acceptable for a healthy adult to be exposed to. However, OSHA does not publish permissible exposure limits for children or sensitive adult populations.

As stated above, the air tests that were done were only to detect the presence of PCBs. It also would have been prudent for GSA and the Department to perform air tests for highly toxic dioxins and furans, which are emitted when PCBs burn, as soon after the fire as possible. According to the material safety data sheets for PCBs,<sup>10</sup> fires involving capacitors have been known to contaminate buildings with dioxins and furans when fires reach very high temperatures (600-650 degrees Celsius). Reaching this temperature range was highly unlikely in the Commerce fire due to its short duration. However, no air tests for dioxins or furans were done, although wipe (surface) tests for dioxins were done on October 5 at the elevators nearest the two vaults where the fire occurred. Samples were collected from the elevator doors on the assumption that the dioxins in the smoke would collide with the elevator doors before being drawn into the elevator shafts. Dioxins were not detected in these samples. GSA environmental staff told the OIG that they did not call for air tests for dioxins and furans because it was just not possible, due to the short duration of the fire, for dioxins or furans to form. They stated that the wipe tests were performed just as a precaution.

We have no specific recommendations for additional tests to be conducted now or other corrective action based on our observations regarding the environmental testing, particularly because so much time has passed since the incident. However, we suggest that the Department view our observations as “lessons learned” for future emergencies. Specifically, if similar decisions about environmental cleanup or testing need to be made in the future, officials need to talk to the individuals who were the eyewitnesses. All our observations came from speaking to the numerous employees, contractors, and Fire Department personnel who observed the conditions in the basement on October 1 and from piecing their stories together. In most cases, we were the first and only representatives of the Department who had discussed the matter in detail with them.

The cost of the additional tests would have been negligible when weighed against the poor relations that resulted with some employees and, in particular, representatives of the Commerce Child Care Center. Whether PCBs burned and whether dioxins or furans were emitted could have easily been verified through timely testing. But, due to inaccurate information and insufficient tests, the Department was not able to back up its claims that the building was completely safe with documentation. In addition, because air tests were not done sooner, the Department will never be able to tell those who went through the decontamination process what, if anything, they were exposed to.

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<sup>10</sup> Material safety data sheets are put out by the manufacturer of a hazardous material, such as PCBs. The purpose of the data sheets is to educate users in how to safely use the hazardous material, as well as inform them of potential hazards.

**B. Not all areas were immediately tested or cleaned**

Not all areas of the basement that may have been contaminated by PCBs were immediately tested or cleaned. For example, employees who work adjacent to the vault in the north end of the basement were concerned that smoke traveled through a large vent that connects the vault and the hallway in front of their office. The vent is very large (approximately 5 feet wide by 3 feet high), and smoke may well have passed through the vent into the hallway. However, the hallway in front of the concerned employees' office was not cleaned, nor were wipe tests taken. Testing and cleaning were only done on the other side of a set of swinging double doors that separated the hallway in front of the concerned employees' office from the hallway that contains the entrance to the vault where one of the fires occurred.

Not until an informational meeting held 25 days after the incident (see page 31) did the concerned employees had an opportunity to ask why their hallway had not been tested or cleaned. Upon hearing their concerns, one of the contractor personnel who put out the fire in the north end of the basement stated that he went through the swinging double doors and walked up and down that hallway with dielectric fluid on his boots. In addition, this individual stated that the hallway was filled with smoke, although it was not as thick as on the other side of the swinging double doors. As a result of this new information, the Department directed the cleanup contractor to perform wipe tests in the hallway on the other side of the swinging double doors. Fortunately, all tests for PCBs came back negative, including those taken on the vent. The contractor also cleaned the entire vent as a precaution. The cleanup contractor, at the direction of GSA and the Department, said that it did not test or clean that area because no one walked down that hallway and no smoke got in the hallway. This conclusion was based on the assumption that the swinging double doors contained the smoke on the vault side of the hallway. Contractor personnel admitted that they were not aware of the vent.

This is another example of how the Department and GSA made decisions about where to take wipe tests and where to clean up without consulting the people who were in the area on the morning of the fire. Incorrect assumptions were made about where people walked and where smoke might have traveled without talking to the individuals who did the walking and/or witnessed the smoke. It would have been very easy to interview the personnel involved to determine what they observed and where they walked, but little or no effort was made to make these contacts. Had there been PCB contamination in the section of the hallway that was not tested and cleaned immediately, it could have been tracked all over the building, causing a serious problem. As with our observations on the air tests, we have no specific recommendations for corrective action to be taken now regarding this issue because the environmental testing and cleanup is complete. However, we would again suggest that the Department view our observations as "lessons learned" for future crises.

### **C. Cleanup area was not secured**

EPA has published standards for how to properly secure an area being treated for PCB contamination. Under 40 C.F.R. 761.125, the responsible party (in this case GSA and the Department) is to effectively cordon off or otherwise delineate and restrict an area encompassing any visible evidence of the spill plus a three-foot buffer. In addition, the EPA standards require that clearly visible signs be posted advising persons to avoid the area to minimize the spread of contamination and the potential for human exposure.

In the case of the cleanup in the Hoover Building basement after the October 1 incident, these standards were not always met. Over the weekend and during the first part of the week after the accident (the week of October 4, 1999), the cleanup effort included the hallways and the vaults. By the end of that week, the hallways tested clean, and the cleanup was concentrated in the vaults, where the worst contamination was found. Cleanup continued in the vaults until December 3, when the last contaminated spot finally tested below the EPA standard of 10 micrograms/100cm<sup>2</sup>. While the cleanup area included the hallways, it appears, based on our discussions with employees who observed the area, that the standards for securing the clean-up area were met. However, according to our interviews and our own observations, once the contaminated area was limited to the inside of the vaults, the standards were not met.

In mid-October, when the OIG inspection team went to several of the vaults to assess the status of the cleanup effort, we found the vaults were unlocked, no warning signs were posted, and there was no three-foot buffer. The only attempt at restricting access was the placement of plastic, yellow "caution" tape in a cross over the door to the vaults. However, the vaults could easily be accessed through a side door from a connecting vault. In fact, electrical contractors working in one of the connecting vaults were completely unaware that any contamination remained in the vault next door. As a result of the environmental safety standards not being met, several people, including the OIG inspection team, walked into the vault thinking there was no hazard remaining. Unfortunately, it is impossible to determine whether PCB contamination was spread as a result of this problem or whether additional people were placed at risk. We brought the problem to the attention of building managers, and steps were taken to better cordon off and clearly mark the cleanup area.

The CFR regulation cited above is quite clear that the "responsible party" is the owner or manager of the location where the spill occurred, not any contractor they might hire. So, while the cleanup contractor should have done a better job of cordoning off and marking the cleanup area, it was the responsibility of GSA and the Department to ensure that all the regulations were followed. Again, because the cleanup is completed, we have no recommendations for corrective actions. However, it might have been helpful to have someone knowledgeable about environmental regulations on staff or available to the Department to ensure that the cleanup

contractor was in compliance with all applicable regulations. The lack of an environmental program at the departmental level is discussed in the last chapter of this report (see page 36).

## **VI. More Attention Should Have Been Paid to Employee Relations**

With regard to employee relations during and after the October 1 incident, the Department did many things well. For example, two representatives from the Office of Human Resources Management and one from the Office of Administrative Services took it upon themselves to accompany the employees and contractors to the hospital to provide assistance. They provided essential services that were much appreciated by the fire victims. Many employees and contractors had to relinquish all of their belongings because they were contaminated, so the departmental staffers handed out taxi fare to those who needed it and contacted family members. The employees we interviewed also gave high marks to the Department's Workers' Compensation Program unit, which was proactive in contacting them and providing all the necessary forms to file for benefits. The Workers' Compensation Program staff also held a few seminars dedicated to helping those affected by the fire.

There are also areas where the Department's relations and communications with employees could have better. After the fire on October 1, the focus of departmental management was on the cleanup and removal of all of the hazardous materials from the building as quickly as possible. While management cannot be faulted for moving quickly to ensure a safe working environment for Commerce employees, the human element in this incident should also have been given a high priority. In particular, the employees and contractors involved in the incident were not provided access to counseling to deal with the resulting emotional issues. In another instance, occupants of the basement were told it was safe to return to work. Yet when they did, they saw the cleanup contractor's crew working in protective suits and masks, which led them to believe that the basement was not safe to work in.

Communication with the employees and contractors directly affected by the events of October 1 could also have been improved. A meeting with these people to disseminate information and answer questions was not held until 25 days after the incident, although some meetings were held with a smaller group of concerned employees and Child Care Center staff and parents prior to this informational meeting. The board of directors and parents concerned about the safety of their children in the Commerce Child Care Center also did not get straight-forward answers to their questions at first. Finally, there has been very little dissemination of information to people who work in the Hoover Building regarding this incident. In all of the above instances and for the future, we believe that sharing information with employees would significantly reduce stress and anxiety and improve communication, as well as employee relations.

### **A. *Counselors were not available to assist employees through the aftermath of the accident***

Being potentially exposed to PCBs and going through the decontamination process was a frightening experience for most. And, returning to work, which for some was in a few days and

for others was in a few weeks, was also traumatic. Several employees have sought professional assistance to cope with the emotional stress they have experienced since the incident. In fact, many employees told us that having someone, such as a counselor, to assist them in dealing with the emotional impact of the events of October 1 would have been extremely helpful.

Unfortunately, the emotional impact the incident had on employees was not considered by departmental management. In talking to a representative of the Federal Emergency Management Agency, we were told that after any traumatic event, the largest group of people that the agency dispatches are community relations specialists, who provide counseling and emotional assistance to the victims. In fact, after the death of Commerce Secretary Ron Brown and 11 other Commerce employees in 1996, grief counselors were provided to employees who needed such a service. However, counselors were not made available to the employees involved in the fire. According to department officials, it did not occur to them that such counseling would have helped employees recover emotionally from this incident.

The Department has an Employee Assistance Program and under the program, a full-time counselor is assigned to the Hoover Building. The counselor works for an outside firm, under contract to the Department. It is possible, if additional counselors are needed on short notice to deal with an emergency, to either negotiate a task order with the existing Employee Assistance Program contractor or quickly issue a new contract to another outside firm able to provide such services. The latter is the mechanism under which the grief counselors were provided in 1996 after the death of Secretary Brown. However, departmental managers did not inform either the Office of Human Resources Management, which oversees the Employee Assistance Program contract, or the counselor assigned to the Hoover Building that counseling services might be needed and that they should make their services known to those employees impacted by the fire (or their supervisors). The Office of Human Resources Management was only notified of one employee that might need assistance, and this information was passed on to the counselor who made several calls to the employee's residence. The employee, who did not live close to the Hoover Building, elected to get counseling assistance closer to her residence.

According to the counselor assigned to the Hoover Building, it is very important to provide counseling to people involved in a traumatic event as early as possible. Departmental officials should have called in the Employee Assistance Program to make counseling services available to affected employees and, if necessary, brought in additional counselors. Therefore, we are recommending that in future crisis situations involving Commerce employees, departmental

management ensure that counseling services are available to any employee who elects to receive the service.

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In responding to our draft report, the Chief Financial Officer and Assistant Secretary for Administration stated that the Department will exercise stronger outreach in the event of future crisis situations to ensure that employees are aware of the counseling available to them. The Department's proposed actions meet the intent of our recommendation.

***B. Communication on basement cleanup was poor***

On Tuesday, October 5, the Hoover Building's basement was reopened, and employees who work there were told that it was safe to return to work. However, the cleanup contractor's personnel, wearing protective suits and masks, were continuing the cleanup process. Some employees found it disconcerting to be told it was safe to be in the basement when the contractors were still there wearing protective gear. In conducting our review, we received many questions about just this point from employees and contractors who work in the basement.

Departmental managers should have explained to employees that they considered the air safe to breathe, based on the information they were receiving from GSA<sup>11</sup>, and that the contractors were wearing the protective gear because it is standard practice to do so. However, no information of this type was provided. It is important to communicate with employees, particularly on safety-related issues that directly affect them. Leaving employees to wonder about their safety is not acceptable. Therefore, we are recommending that in future crisis situations, departmental management endeavor to keep all building occupants informed about health and safety issues that directly affect them.

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The Department agreed with this recommendation in its response to our draft report and said it will, in future crisis situations, keep all building occupants informed about health and safety issues that affect them. The Department's proposed actions meet the intent of our recommendation.

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<sup>11</sup> As stated in the previous chapter (see page 22), some of the assumptions GSA used to determine whether air testing was necessary were faulty. Of course, departmental officials had an obligation to verify the accuracy of the assumptions GSA made and conduct testing if they thought it was necessary. But, the faulty assumptions went unchallenged, and no air testing was done prior to the reopening of the basement on October 5. The air testing that was done on October 5 showed that the air was within OSHA's permissible PCB exposure limits for healthy adults. However, as we previously stated, it would have been prudent for the Department and GSA to conduct air tests for PCBs, dioxins, and furans before the building was re-opened.

**C. *Informational meeting for fire victims was not held until 25 days after the accident***

It took 25 days for the Department to hold a meeting for the approximately 39 employees and contractors who were directly involved in the fire and PCB accident. The purpose of the meeting was to provide the employees and contractors with information about what had happened and to answer questions. This meeting was highly charged, as people vented their anger and worries about the lack of information and risks, and their perception that the Department did not care about what had happened to them.

There is no justifiable reason for taking so long to hold this meeting. Building managers, who organized the meeting, agreed that it should have been held sooner. But, they said that they were unaware, until the meeting, of the impact the incident had on those involved. When information is not provided in a timely manner to those who clearly have a vested interest in that information, suspicions begin to arise. Therefore, as we suggested in the previous section, in future crisis situations, departmental managers should endeavor to keep all building occupants informed about health and safety issues that directly affect them.

**D. *Information on the accident has still not been provided to all building occupants***

Other than a brief e-mail message from the Secretary of Commerce sent on Monday, October 4 regarding the fire and PCB accident, there has been no dissemination of information about the accident to people who work in the Hoover Building. There was some discussion early on of holding an “all hands” meeting, but this did not occur. When we asked officials in the Office of Administrative Services why the meeting did not take place and whether any information would ever formally be shared with employees, we were told that senior management did not want to dwell on what had happened and wanted employees to put the incident behind them.

During our review, many people asked about the cleanup process and whether the building was really safe. We also heard several complaints that the Department was not sharing information because it was “covering up” the severity of the October 1 incident. While we do not believe departmental management is involved in a “cover-up,” it is clear that information about both the accident and the current safety of the building is needed. We believe that the occupants of the Hoover Building have a right to know that the building they are working in is safe. Therefore, we are recommending that the Department communicate a summary of what happened on October 1, as well as the results of the testing and cleanup to all building occupants as soon as possible.



The Chief Financial Officer and Assistant Secretary for Administration, in the Department’s response to our draft report, stated that on February 28, 2000, the Department sent an e-mail

message to all building occupants advising them of the environmental testing and cleanup results. The Department's actions meet the intent of our recommendation.

## **VII. A Commerce Command Center Is Needed to Best Ensure Communication and Continuity of Operations**

When the Hoover Building was closed on October 1, the Commerce Department was effectively cut off from the outside world. No one was able to call in to provide assistance, and there was no central authority for handling any outgoing calls. Fortunately, someone remembered that the Commerce Department has some office space in the Ronald Reagan Building and International Trade Center across the street from the Hoover Building. So the Secretary's phone was switched to that location, and the office space was taken over for use by the Secretary and other key staff. Unfortunately, all of these arrangements were ad hoc and not in accordance with any plan.

All federal agencies are required to prepare a continuity of operations plan. Such plans are required by Executive Order 12656 and Presidential Decision Directive 67 and provide for the continuance of essential departmental functions during an emergency. Commerce is the only major federal agency that has not yet developed a continuity of operations plan. Representatives from the Office of Security are currently developing the Department's plan and are regular participants in the interagency continuity of operations working group. This group's mission is to provide assistance and feedback to the participating agencies in the preparation and potential execution of a continuity of operations plan.

The interagency continuity of operations working group provides a prime example of how calls could not be made to the Commerce Department during the October 1 incident. Working group representatives from the Department of State and the Federal Emergency Management Agency tried all morning and into the afternoon, without success, to get make contact with Commerce's working group members to offer their assistance. The telephones of Commerce's continuity of operations contact points were not being answered because the building had been evacuated; the phones were ringing at empty desks and no arrangements were made to forward calls to a working number off-site. As a result, the expertise of the continuity of operations working group members was not brought to bear on the October 1 incident.

In addition to incoming calls, there were also outgoing calls that should have been made on October 1. Per 40 C.F.R. 761.125, all spills involving one pound or more by weight of PCBs must be reported to the National Response Center, which is jointly managed by EPA and the U.S. Coast Guard. All calls that come into the center are referred to one of these two agencies to determine whether a response is needed and, if so, to dispatch a federal on-scene coordinator to assist in decision-making regarding testing and cleanup.

Such a call was not made to the National Response Center on October 1. Approximately 24 ounces of dielectric fluid were spilled (2 ounces from each of 12 capacitors), and this fluid contained nearly pure PCBs. Based on these figures, it is highly likely that the one pound limit was reached. In cases where the amount of PCBs spilled is not immediately known, the

National Response Center's position is that it should be called and a report made to be on the "safe side." Therefore, the Department or GSA should have called the center. Because they were not contacted, EPA (the agency that would have responded to this incident) was not able to provide critical assistance in environmental testing and cleanup.

We should note that EPA's federal on-scene coordinator for the Washington, D.C., area is actually located in Philadelphia. Upon hearing of the incident on the news, he attempted, over several days, to call the Department and GSA to offer assistance. He was unsuccessful in contacting the appropriate on-scene personnel. By the time he spoke to someone at GSA with some knowledge of the incident, it was October 6 and everything was under control.

Many of the external communication problems experienced on October 1 could have been prevented if the Department had a command center in operation. We were told by the continuity of operations working group that Commerce is the only federal department without such a center. The center would operate through an emergency as a contact point for all departmental business, including dissemination of information to emergency personnel and the press.<sup>12</sup> The center would ordinarily only be operational during normal business hours, but in the event of an emergency, such as the October 1 incident, the center would be ready to run on a 24-hour basis. The continuity of operations working group members and EPA personnel could have called the command center and immediately been put in touch with the appropriate Commerce staff persons no matter what time of day it was. In addition, the command center staff would be knowledgeable about when to make calls for specialized expertise, such as the need to call the National Response Center in the event of a hazardous materials spill.

Certainly, part of Commerce's continuity of operations plan, once it is developed, will be to establish a command center. However, we believe that the Department should not wait to establish a command center since the plan may take several years to complete and implement. In an emergency, communications need to remain intact and the continuity of critical departmental operations must be ensured. A command center is needed to ensure that objective. Therefore, we are recommending that departmental management create a command center as soon as possible.



In responding to our draft report, the Chief Financial Officer and Assistant Secretary for Administration stated that the Department is studying arrangements to ensure that communications and continuity of operations are maintained in the event that the Hoover

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<sup>12</sup> The command center would ordinarily be located in the Hoover Building. But, in the event of an emergency in the building, a back-up location would be in place so that the command center could seamlessly be relocated without interruption in communications.

Building is compromised again. In its action plan, the Department should expand on its proposed actions to meet the intent of this recommendation.

### **VIII. Commerce Needs to Ensure Compliance with Environmental Requirements**

During our inspection, several Commerce officials and employees expressed concern that, at the Department level, there are no staff knowledgeable about environmental regulations and compliance. Typically, the staff who oversee the environmental program and compliance at other federal agencies have experts on staff, or access to technical expertise, such as environmental engineers or industrial hygienists. While no one believed that having such persons on staff would have prevented the October 1 incident, the officials and employees expressed concern that Commerce had to rely solely on GSA for advice and guidance on compliance with environmental regulations, particularly with regard to what regulations governed the cleanup of the PCBs released in the basement.

We did not assess the merits of having an environmental program at the Department level, mainly because it was outside the scope of our review. Nor did we assess what environmental support the Department could obtain from EPA, other federal agencies, or the Commerce bureaus that have some in-house environmental expertise. However, we did perform some limited inspection work to determine what requirements there were for such a program and what the history of Commerce's environmental program has been. We found that the requirement for an environmental program at the departmental level is set forth in Departmental Administrative Order (DAO) 216-17, which lays out how Commerce will comply with Executive Order 12088 "Federal Compliance With Pollution Control Standards."<sup>13</sup> Under the DAO, the Chief Financial Officer and Assistant Secretary of Administration shall "establish policy and provide oversight and guidance to the Department and its operating units to ensure compliance with environmental laws and regulations." The environmental compliance and management program is to include coordinating reviews and surveys requiring Department-wide response, developing an inventory of the Department's sites that store regulated materials and/or hazardous waste, establishing and chairing an intra-agency task force on environmental compliance, performing environmental audits, and providing information, guidance, and training to bureaus on environmental regulations and compliance.

Based on our discussions with Commerce officials and employees, there appears to be a lack of clarity regarding how the Department is carrying out the responsibilities set forth in the DAO. Therefore, we are recommending that the Department perform an assessment to determine what type of environmental program is needed at the departmental level, including whether an environmental engineer, industrial hygienist, or other specialist is required, to ensure compliance with all applicable statutory requirements, executive orders, and departmental orders, as well as provide adequate protection for the Department and its employees. In designing any new

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<sup>13</sup> DAO 216-17, "Compliance With Environmental Pollution Standards," effective December 29, 1988.

environmental program, the Department should consider what expertise it can utilize from other federal agencies as well as the Commerce bureaus that have in-house environmental experts.



The Department's written response to our draft report stated that because the merits of having an environmental program at the Departmental level were outside the scope of the OIG's review, this chapter and recommendation should be dropped from the report. We subsequently met with departmental officials and they agreed on the need for an assessment to determine what type of environmental program is needed at the departmental level. Therefore, we request that the Department, in its action plan, discuss what actions it is taking to address our observations and recommendation.

## RECOMMENDATIONS

We recommend that the Chief Financial Officer and Assistant Secretary for Administration take the following actions:

1. In conjunction with GSA, conduct an inventory of remaining PCBs in the building and develop a plan to remove them, if necessary, or adequately contain them. If the PCBs cannot be removed, any equipment or area that contains them should be so marked. Because it would be impractical to mark the light ballasts, all appropriate personnel should be made aware that if a light ballast is not marked as PCB-free, it should be assumed to contain PCBs (see page 8).
2. Work with GSA to expedite the retesting of the vault floors for PCB contamination. If the vault floors are still contaminated, consider resealing them with an epoxy sealant or other protective material to eliminate or further minimize the spread of contaminants from the floors. Once the contamination factor of each vault is known, remove the current warning signs and replace them with either a sign that simply states that the vault contains no PCB transformers or a warning sign that stresses the contamination factor and the need for protective footwear (see page 9).
3. Immediately make protective footwear and disposal drums available to staff who must work in the Hoover Building's contaminated vaults, until such time that the vaults are tested and found to be free of contamination (see page 10).
4. Better control access to the fire alarm control room and post signs to remind people to lock the door when they exit the room (see page 12).
5. Prepare a departmental policy statement or directive that explicitly outlines who has the authority to turn off a fire alarm and when it is appropriate to do so. This policy should be disseminated to all building management, Office of Security, and security guard staff and be prominently posted on the fire alarm control panel (see page 12).
6. Identify funding for and then acquire and install a public address system in the Hoover Building (see page 13).
7. In conjunction with GSA, determine what caused the fire and smoke alarms to malfunction. Corrective measures should be taken to ensure that the problems do not recur (see page 14).

8. Immediately install a security door, an alarm, and an “Emergency Exit Only” sign at the first floor level of stairwell number 13 to ensure access in the case of an emergency (see page 15).
9. Take appropriate corrective actions to fix the one exterior door (first floor at intersection of 7 and 8 corridors) that did not open on October 1. Further, check all Hoover Building exterior doors to make sure they will open during an emergency. If necessary, make repairs to ensure that all of the doors are working properly (see page 15).
10. Ensure that vaults containing high-voltage transformers are routinely locked and only personnel with a need to enter the vaults are issued keys (see page 16).
11. Disseminate to the Hoover Building’s occupants the emergency evacuation plan or clear guidance outlining evacuation steps and responsibilities based on the plan. Follow up with regular fire drills to ensure that employees remain familiar with the building’s evacuation procedures. As part of this education effort, building occupants should also be told that all doors in the building are open for exit during an emergency and all doors should be utilized during an evacuation (see page 17).
12. Ensure that persons who enter the building before and after normal hours, using a guarded entrance (including the 14<sup>th</sup> or 15<sup>th</sup> Street service ramp entrances), are required to sign in and sign out on the logs. Ensure that non-Commerce employees, including contractors, maintenance employees, and delivery personnel, are required to sign in and out at all times when entering or leaving the building (see page 20).
13. In future crisis situations involving Commerce employees, immediately make counseling available to any employees who feel they might benefit from such a service (see page 29).
14. In future crisis situations, keep all building occupants informed about health and safety issues that directly affect them (see page 30, 31).
15. Communicate a summary of what happened on October 1, as well as the results of the testing and cleanup, to all Hoover Building occupants as soon as possible (see page 31).
16. Create a command center for the Department (see page 34).
17. Perform an assessment to determine what type of environmental program is needed at the departmental level to ensure compliance with all applicable statutory requirements, executive orders, and departmental orders, as well as provide adequate protection for the Department and its employees (see page 36).

## APPENDIX A

### Time Line of Key Events October 1, 1999

- 5:45 am Reports of smoke and “funny smell” were made by NOAA print shop employees in the basement at the south end of the Herbert C. Hoover Building.
- 5:50 am Reports of smoke and “funny smell” were made by Jewell (cleaning contractor at the time of the fire) personnel in the basement at the north end of building; the security guard office was called.
- 6:00 am A clock correction signal was sent to the capacitors (signal lasted approximately six to eight seconds).
- 6:00 am Two contractors working in B085 vault (north end of building) heard a “pop” and walked into an adjacent room and saw flames coming out of a wall-mounted electrical box. They put the fire out, using a nearby fire extinguisher and opened a window in the vault to vent the heavy smoke.
- 6:00 am A security guard paged an engineer to check reports by Jewell employees of smoke in basement near corridor 0 and 6.
- 6:05 am A building engineer (paged by security guard) verified smoke at corridor 0 and 6. He was told by the contractors that they had put the fire out.
- 6:10 am A security guard also reported to the basement to verify reports of smoke at corridor 0 and 6. He went back to his office and called GSA’s fire shop, which told him to pull the fire alarm.
- 6:17 am The security guard pulled the fire alarm (pull station on first floor outside the guard office).
- 6:20 am Two building engineers, accompanied by a NOAA print shop employee, began trying to locate the source of the increasingly dense smoke in the south end of the building.
- 6:25 am Two building plumbers turned on the fan in the carpenter’s shop (intersection of 8 and 6 corridors) to help suck some the smoke from the B085 fire out of the building.

- 6:25 am Two building engineers located a hot door at vault B019 (south end of the building). They entered as a NOAA employee held the door open. They observed flames coming out of a wall-mounted electrical box. They put the fire out using a dry chemical fire extinguisher they were carrying (in anticipation of needing to put a fire out). They turned on the high-powered fan in the vault (which vents to the outside), and the smoke quickly dissipated.
- 6:26 am The fire alarm was turned off by an unknown person.
- 6:28 am The District of Columbia Fire Department arrived and were escorted down the north ramp to the building basement and the fire at the north end of the building, although the fire was out by this time. They used a dry chemical fire extinguisher on the electrical box again because it was glowing and still producing smoke. Firefighters reported very heavy smoke in this area.
- 6:30 am Two building engineers who put out the B019 fire heard of the B085 fire from a security guard. They walked to the B085 area and informed the Fire Department and others in the area of the second fire in B019.
- 6:35 am The Fire Department requested a “full box alarm,” meaning that they had confirmed an actual fire. A full box alarm includes four engine companies, two ladder companies, a heavy rescue unit, and a battalion chief. A hazardous materials (Haz Mat) team also responded because it was an electrical fire.
- 6:45 am A building engineer turned off the HVAC fans in the north end of the basement. This stopped the air from being recirculated from the basement to the rest of the building.
- 7:00 am The same building engineer turned off the HVAC fans for the remainder of building when he found out that there was a second fire at the other end of the building.
- 7:10 am Building engineers walked Fire Department personnel through all vaults in the basement to determine whether there were additional fires. They observed burst and leaking capacitors in four other vaults, but no fires.
- 7:28 am A building engineer was transported to George Washington University Hospital for smoke inhalation.
- 7:30 am GSA fire safety and fire alarm staff arrived on the scene.

- 8:00 am The Fire Department, based on discussions with building engineers and electricians regarding the age of the capacitors, began to suspect that PCBs might be involved. Simplex Time Recorder Company (the clock company) was called, but no one there could confirm if there were PCBs in the capacitors.
- 8:15 am The District of Columbia Fire Department's Haz Mat Team determined that it did not have the necessary field test kit to test for PCBs. Other local Haz Mat Teams were called to see if they had the correct test kit. It was finally determined that Montgomery County Haz Mat Team had the test kit and they were requested to report to the scene.
- 8:30 am Building managers, based on the advice of the Fire Department, called for the closure of the building for the day. A door-to-door search was initiated to ensure that all people were evacuated.
- 8:45 am Persons known to have been in the basement at the time of the fire and/or those who had direct contact with the smoke or dielectric fluid were directed to the Hoover Building's north courtyard for further instructions.
- 9:00 am The Fire Department notified George Washington University Hospital to expect a large number of people for a hazardous materials decontamination.
- 9:00 am The District of Columbia Fire Department Haz Mat Team began preparing for a decontamination process in the north courtyard.
- 9:00 am A GSA industrial hygiene staff arrived on the scene. Together with fire safety staff, they inspected the vault areas wearing protective clothing.
- 9:50 am The Montgomery County Haz Mat Team arrived.
- 10:05 am Preliminary positive test results from Montgomery County Haz Mat Team showed that there were PCBs in the dielectric fluid.
- 10:30 am The decontamination process began in the north courtyard. People were divided into two groups: Group A (direct exposure) and Group B (secondary exposure).
- 11:00 am A&A Environmental (the clean-up contractor hired by Commerce) arrived on the scene and began preparing for cleanup.
- 11:45 am Enviro-Management, Inc. (the GSA environmental testing contractor) arrived on the scene and began taking wipe samples.

7:30 pm      Enviro-Management began to report results of its sampling to GSA. They confirmed PCBs in the dielectric fluid in extremely high concentration levels.

## APPENDIX B

### Agency Response to the Draft Report



UNITED STATES DEPARTMENT OF COMMERCE  
Chief Financial Officer  
Assistant Secretary for Administration  
Washington, D.C. 20230  
MAR 01 2000

MEMORANDUM FOR Johnnie E. Frazier  
Inspector General

FROM: Linda J. Bilmes  
Chief Financial Officer and  
Assistant Secretary for Administration

SUBJECT: Draft Inspector General Report *"Office of the Secretary – There Are Lessons to Be Learned from the October 1999 Fire and PCB Accident in the Herbert C. Hoover Building" (IPE-12453)*

Thank you for the opportunity to review the subject draft inspection report. Our comments on the report and its recommendations are provided in Attachments 1 and 2.

We have taken action on all the issues identified in the report where feasible. As always, we are working as a team to improve safety in the Department. Raúl Perea-Henze, Deputy Assistant Secretary for Administration, is working with Dave Holmes, Deputy Assistant Secretary for Security, and Tony Fleming, Director for Administrative Services, to ensure that appropriate corrective action is taken. Where action depends on the General Services Administration, we have raised these issues and requested an action plan and timetable. The status of each recommendation is summarized in Attachment 3.

I would like to thank you for your staff's professionalism during the conduct of the inspection. We look forward to working with your office as we implement the recommendations contained in the report. Please feel free to contact me if you would like to discuss our comments in additional detail.

Attachments

Attachment 1

## Comments on Draft IG Report

### Table of Contents

We suggest moving the section on the unlocked vault doors titled "IV - Physical Security of the Building Needs Improvement, paragraph B - Vault Doors are not locked" to the preceding section titled "III - Building Safety Issues were Highlighted by the Fire." The issue of vault doors is more appropriately placed under building safety issues.

We suggest changing the title of "IV - Physical Security of the Building Needs Improvement" to read "IV - Physical Security Concerns."

### Page i

**3<sup>rd</sup> paragraph, 2<sup>nd</sup> sentence:** This sentence currently reads "The General Services Administration and the Department determined that floors 1 through 7 of the building were safe to occupy on Monday, October 4." We suggest changing the sentence to read "The Department, based upon the recommendation from the General Services Administration, determined that floors 1 through 7 of the building were safe to occupy on Monday, October 4." This statement more accurately reflects the decision-making process which occurred.

**3<sup>rd</sup> paragraph, 4<sup>th</sup> sentence** should be changed to read "The environmental cleanup process continued, mostly on the weekends, until December 3." The report currently cites November 21 as the completion date. A&A completed their cleanup on December 3.

### Page ii

**2<sup>nd</sup> paragraph:** Add a sentence that reads "In addition, we found that the doors to the basement vaults, which contain critical electrical equipment, are not routinely locked" after "Similarly, at least one exterior door was not unlocked and therefore was not usable for exit during the building evacuation."

**3<sup>rd</sup> paragraph:** Change the paragraph title from "Physical security of the Hoover Building needs improvement" to "Concerns relevant to the Security of the Hoover Building."

Move the sentence "In addition, we found that the doors to the basement vaults, which contain critical electrical equipment, are not routinely locked." from this paragraph to the preceding paragraph.

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**page iii**

**1<sup>st</sup> paragraph, 6<sup>th</sup> sentence:** Currently, this sentence reads "In addition, environmental regulations were not followed with regard to securing the cleanup areas." We suggest changing it to read "In addition, in some instances, environmental regulations were not followed with regard to securing the cleanup areas. While the cleanup areas included the hallways, standards were met but once the contaminated area was limited to the inside of the vaults, the measures taken were not adequate."

**2<sup>nd</sup> paragraph:** Prior to the sentence stating that "... an informational meeting with the many employees and contractors directly affected by the events of October 1 was not held until 25 days after the incident," language should be added that reads "Office of Administrative Service (OAS) managers met with the International Trade Administration (ITA) staff housed in the basement to answer their questions and ease their concerns five days after the incident. OAS staff, accompanied by GSA officials and staff from EMI contractors (GSA's environmental contractor), met with the Child Care Center staff, parents and member of the board of directors to answer questions twelve days after the incident." The inclusion of these statements reflect management's other outreach efforts.

**Page 2**

**3<sup>rd</sup> paragraph, 2<sup>nd</sup> sentence** should read "In addition, capacitors burst or leaked, but did not ignite." This more clearly conveys what occurred.

**Page 3**

**3<sup>rd</sup> paragraph, 3<sup>rd</sup> sentence** is incorrect. All individuals did not shower in the courtyard as stated. Only the individuals in Group A took showers in the courtyard. Group B individuals showered only at the hospital.

**Page 4**

**Last paragraph, 3<sup>rd</sup> sentence:** The cleanup was not completed on November 21. This paragraph should be changed to identify December 3 as the date on which cleanup was completed.

**Page 5**

**2<sup>nd</sup> paragraph:** We suggest moving the last sentence, "It should be pointed out that there is no evidence that the lack of preventive maintenance was a contributing factor to the fire," to the beginning of this paragraph. This paragraph, as currently written, unnecessarily emphasizes the fact that building management had not been performing the required preventive maintenance on the Symplex clock system.

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**Page 7**

**4<sup>th</sup> paragraph:** We suggest adding "However, it would be impractical to mark all of the light ballasts," after the 2<sup>nd</sup> sentence "For example, 80 percent of the fluorescent light ballasts in the building contain very small amounts of PCBs." The impracticality of labeling all light ballasts is cited on the next page of the report. It should also be reflected here to portray a balanced viewpoint.

**Last paragraph:** We suggest that this paragraph include an indication that the capacitors were not marked as containing PCBs because building management was not aware that they contained PCBs. This statement will make clear to the reader that there was no intentional deception on the part of building management.

**Page 8**

**2<sup>nd</sup> paragraph:** The Department is currently working with GSA to conduct an inventory of equipment containing PCBs and to develop an action plan to address such equipment.

**Last paragraph:** It would be helpful to reflect that the signage on the vault doors and maintenance of the switchgear in the vault rooms are GSA's responsibility. New signage was placed on all of the vault room and adjoining room doors in January because the Department took the initiative to do so itself instead of waiting for GSA action.

**Page 10**

**Paragraph titled "Need for protective footwear should be addressed:"** Although it is GSA's responsibility to provide protective footwear for use in the vault rooms, the Department has purchased footwear and disposal bags, and placed them in the vaults and adjoining rooms rather than wait for GSA to do so.

**Page 12**

**3<sup>rd</sup> paragraph:** In January, the locks to the fire alarm room were changed and signs were posted reminding people to keep the door locked.

**Page 13**

**3<sup>rd</sup> paragraph, 2<sup>nd</sup> sentence states,** "Despite very heavy smoke in this area, the alarm did not activate. This is particularly troubling because the functionality of this particular smoke alarm had been checked by building managers just one week before the incident." That particular alarm was tested one week before the incident. On February 8, GSA re-tested all of the smoke alarms and all were functional. Our conclusion was that there was not enough smoke to activate the alarm on October 1. Of course, we will re-test the alarm to verify that it is functional.

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**Last paragraph, first sentence:** This sentence currently reads "According to the two contractors who put out the basement fire at the north end of the building, the stairwell exit from the basement, located in the middle of corridor 6, was locked at the first floor." It should be amended to read, ". . . north end of the building, the door in stairwell No. 12 at the first floor level, which leads into the Child Care Center, was locked."

**Page 15**

**End of the page:** Re-letter the paragraph on page 16 titled "B. Vault doors are not locked." and relocate it here:

**"G. Vault doors are not locked.** During our inspection, we made several visits to the vaults in the Hoover Building's basement to assess both the cleanup and security situation. Despite the fact that the basement vaults contain critical electrical equipment, we found that the vault doors are not routinely locked. Per 29 C.F.R. 1910.303(h)(2), doors to electrical vaults containing circuits or equipment which exceed 600 volts must be kept locked at all times. However, during an Office of Inspector General (OIG) visit to the vaults in mid-October, six of the eight vaults containing high-voltage transformers were unlocked. Building managers locked the two vaults where the fire occurred only after we expressed concern about their being unlocked. However, in early January, we found that at least four of the vaults were still unlocked."

**Page 16**

**1<sup>st</sup> paragraph:** Change the title from "IV - Physical Security of the Building Needs Improvement" to read "IV - Physical Security Concerns."

**In the 1<sup>st</sup> sentence,** change the word "problems" to "concerns" so that the sentence reads "In addition to safety issues, the October 1 incident in the Hoover Building also highlighted *concerns* with the building's security systems and procedures, especially during an emergency."

**Remove the 3<sup>rd</sup> sentence,** "In addition, we found that the doors to the basement vaults, which contain critical electrical equipment, are not routinely locked," from this paragraph.

**Change the last sentence** to read "Based on these observations, we are recommending improvements to address emergency-related situations" instead of "Based on these observations, we are recommending improvements to make the building more secure."

**Page 19**

**2<sup>nd</sup> paragraph:** The first sentence states "GSA and the Department decided to reopen the building before air tests were performed." To provide a more accurate reflection of the decision-making process, the language here should reflect that the Department, lacking

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technical expertise in this area, relied on GSA's technical expertise and recommendation on when to re-open the building.

**Page 23**

**2<sup>nd</sup> paragraph:** The 4<sup>th</sup> sentence should be corrected to reflect that cleanup was completed on December 3, not November 21.

**Page 25**

**2<sup>nd</sup> paragraph:** The 8<sup>th</sup> and 9<sup>th</sup> sentences should be restated to present a more balanced picture. These sentences currently read "A meeting with these people to disseminate information and answer questions was not held until 25 days after the incident. The board of directors and parents concerned about the safety of their children in the Commerce Child Care Center also did not get straight-forward answers to their questions." Representatives from the OAS met with the ITA employees in the basement area five days after the incident to answer questions. Eleven days after the incident, OAS management set up a meeting with the Commerce Child Care Center staff, board members and parents to answer questions. Representatives from OAS, GSA, A&A Environmental, and GSA's environmental contractor were present at this meeting. In addition, OAS staff provided copies of the field test results to a senior Child Care Center board member prior to the final report from A&A Environmental. Following that board member's review of the tests, OAS set up a meeting on October 28, 1999, to answer questions about the test results for the board member. OAS management, GSA staff, A&A Environmental staff and OIG representatives were present at that meeting.

**Page 26**

**3<sup>rd</sup> paragraph:** The first sentence states "Under the contract that the Department has for its Employee Assistance Program, there is a provision to provide counselors on very short notice to deal with emergencies. It was under this provision that the grief counselors were provided in 1996 for employees needing help after the death of Secretary Brown." These statements need correction. Technically, there is no such provision in the current contract, nor was there one in the contract that was in effect in 1996. (The current contract has the same statement of work and is basically the same as in 1996, but was awarded to a different EAP contractor). Under the current contract, the Department must set up a separate task order to bring in additional counselors when a crisis situation occurs. This was also the case in 1996, and the Department had more lead time to procure such services.

The EAP counselor interviewed by the OIG was a temporary substitute who was not assigned to the Hoover Building at the time of the fire. Therefore, we believe an accurate picture has not been presented. The Office of Human Resources Management states that counseling services were offered. The EAP counselor who was assigned to the Hoover Building on October 1, 1999, asserts that when the incident first occurred, she contacted a

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representative in Building Management Services and supervisors in the National Oceanic and Atmospheric Administration (NOAA) Print Shop to offer her services but both offices indicated that the services were not needed at that time. Later that week or the next, responding to a supervisor's concern, the counselor called an employee's home a number of times, leaving messages on her answering machine that she was available to her and offering her counseling or referral services. The employee never returned the counselor's calls nor did she seek EAP counseling when she eventually returned to work.

**Page 27**

**3<sup>rd</sup> paragraph, 3<sup>rd</sup> sentence:** This sentence currently reads "This may be true since they made little effort to talk to the victims after the accident." We take strong exception to this statement. We agree that the informational meeting with the affected employees could have been held earlier, however, efforts were made to talk to the victims after the accident. The Deputy Assistant Secretary for Administration, almost immediately after the incident, asked the Director of the Office of Safety and Building Management to check on the status of the employees involved and to keep him apprised. The Director made calls to the NOAA print shop supervisor, Office of Security (OSY), and building management supervisors to inquire about the health of the employees and contractors. Further, the Director recalls personally talking to at least eight affected employees within days after the incident, inquiring how they felt and how they were doing.

**Pages 31 and 32**

As the report notes, the merits of having an environmental program at the Departmental level were outside the scope of the review. For this reason, we recommend deletion of the section titled "Commerce Needs to Ensure Compliance with Environmental Requirements." The observations offered in the draft report are, however, under consideration by the Department.

Attachment 2

**Recommendations**

We have taken or intend to take the following actions on the recommendation presented in the report.

1. Immediately begin performing the required preventive maintenance on the Hoover Building's central clock system.

*Preventive maintenance on the central clock system is no longer necessary. The preventive maintenance required involved the electronics and mechanisms for the clock adjustment. These mechanisms and electronics were removed along with the capacitors.*

2. In conjunction with GSA, conduct an inventory of remaining PCBs in the building and develop a plan to remove them, if necessary, or adequately contain them. If the PCBs cannot be removed, any equipment or area that contains them should be so marked. Because it would be impractical to mark the light ballasts, all appropriate personnel should be made aware that if a light ballast is not marked as PCB-free, it should be assumed to contain PCBs.

*GSA asked Federal agencies to conduct a physical survey of potentially PCB-containing operating equipment in government-owned buildings. We completed the physical survey and responded to GSA on January 16. We will work closely with GSA on an action plan to address any PCB containing equipment. Our survey results, by equipment category, are:*

***Small Capacitors with PCBs***

- *Moat lights (96) - Each 400 watt mercury light with capacitor.*
- *Exterior 3<sup>RD</sup> Floor (6) - Each 1000 watt mercury light with capacitor.*
- *Exterior 3<sup>RD</sup> Floor (36) - Each 400 watt mercury light with capacitor.*
- *Exterior 7<sup>TH</sup> Floor balcony (164) - Each 400 watt mercury light with capacitor.*
- *Interior office and hall flourescent T-12 light ballasts - Unknown quantity.*

***Chiller Motors that have a capacitor start***

- *None containing possible PCB contaminants located within HCHB.*

***Circuit Breakers***

- *None containing possible PCB contaminants located within HCHB.*

***Switches (including sectionalizers and motor starters)***

- *None containing possible PCB contaminants located within HCHB.*

3. Work with GSA to expedite the retesting of the vault floors for PCB contamination. If the vault floors are still contaminated, consider resealing them with an epoxy sealant or other protective material to eliminate or further minimize the spread of contaminants from the

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floors. Once the contamination factor of each vault is known, remove the current warning signs and replace them with either a sign that simply states that the vault contains no PCB transformers or a warning sign that stresses the contamination factor and the need for protective footwear.

*A&A Environmental has provided us with a \$45,000 estimate to re-test the vault floors. We will work with GSA to address this recommendation.*

4. Immediately make protective footwear and disposal drums available to staff who must work in the Hoover Building's contaminated vaults, until such time that the vaults are tested and found to be free of contamination.

*Although it is GSA's responsibility to provide protective footwear in the vault rooms, the Department has purchased footwear and disposal bags, and placed them in the vaults and adjoining rooms.*

5. Better control access to the fire alarm control room and post signs to remind people to lock the door when they exit the room.

*The door to the fire alarm control room at the 3 and 0 corridors, where the master fire alarm control panel is located, is keyed by OSY and is on the HCHB master key system. The key to this door is contained in a lock box on the door for which GSA has the combination, and provides them access to the fire control room. Following the fire, the lock on this door was changed and keys to this door are now issued on approval by building management. Building management has also posted signs on the door reminding people to keep the door locked.*

6. Prepare a departmental policy statement or directive that explicitly outlines who has the authority to turn off a fire alarm and when it is appropriate to do so. This policy should be disseminated to all building management, OSY, and security guard staff and be prominently posted on the fire alarm control panel.

*We agree with the necessity of issuing a statement establishing who has authority to turn off the fire alarm and at what point it is appropriate. As the fire alarm system is under its purview, we will develop this policy statement in collaboration with GSA and disseminate it as recommended.*

7. Identify funding for and then acquire and install a public address system in the Hoover Building.

*The Department agrees that a public address system would enhance building security and safety in the event of a similar emergency. The Department is discussing the scope of such a system with GSA in the context of additional renovations intended for the Hoover Building.*

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8. In conjunction with GSA, determine what caused the fire and smoke alarms to malfunction. Corrective measures should be taken to ensure that the problems do not recur.

*GSA tested all the smoke alarms on February 8. All smoke alarms were functional. GSA tested the fire alarm system in the Herbert Hoover Building on February 17 from 1:00 a. m. until 3:00 a. m. The audio visual devices were activated building-wide several times during the test hours. GSA planned to conduct follow-on testing of the fire alarm system on February 23 and 24, and will inform us of the results shortly.*

9. Immediately install a security door, an alarm, and an "Emergency Exit Only" sign at the first floor level of stairwell number 13 to ensure access in the case of an emergency.  
(Note: this recommendation should be changed to read "stairwell number 12." Number 13 is incorrect; this door did have panic hardware on it at the time of the fire.)

*The door in question is located on the 1<sup>st</sup> floor at the center of the 6<sup>th</sup> corridor which leads to the DOC Child Care Center. There were two other 1<sup>st</sup> floor doors that were locked in the same manner and also lead to the Child Care Center. All three doors have been fitted with emergency egress panic bars which will provide for immediate access to the 1<sup>st</sup> floor and to an exit from the building in the event of future emergencies. These emergency exits have also been marked for "Emergency Exit Only." This work was completed on January 19.*

10. Take appropriate corrective actions to fix the one exterior door (first floor at intersection of 7 and 8 corridors) that did not open on October 1. Further, check all Hoover Building exterior doors to make sure they will open during an emergency. If necessary, make repairs to ensure that all of the doors are working properly.

*The age of the building and doors has caused some doors to hang improperly. On occasion, doors will become misaligned and unable to open. Monthly, OSY inspects all of the doors in the Hoover Building and reports any such failures to building management for corrective action. Building management has been and is continuing to aggressively replace faulty door closure systems and adjust the alignment of doors to correct this problem.*

11. Disseminate to the Hoover Building's occupants the emergency evacuation plan or clear guidance outlining evacuation steps and responsibilities based on the plan. Follow up with regular fire drills to ensure that employees remain familiar with the building's evacuation procedures. As part of this education effort, building occupants should also be told that all doors in the building are open for exit during an emergency and all doors should be utilized during an evacuation.

*The Offices of Security and Administrative Services will partner to implement this recommendation. On February 11, we conducted a fire drill of the HCHB. On February 28, an email was distributed to all building occupants stressing the importance and seriousness of responding properly to a fire alarm.*

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12. Develop procedures so that, in the case of an emergency evacuation of the building, the new key card access system on the courtyard exterior doors is immediately disabled so that entrance through those doors is not permitted.

*Key card doors are controlled by an electronic device inside the door panic bar hardware, which is activated by use of a key card. These doors allow immediate egress, but deny unauthorized entry. This is standard procedure for key card operated doors. The problem experienced on October 1 was that the fire alarm was not sounding during the emergency situation. Therefore, there was no way to know that there was an emergency in the building. The current function of the key card doors is considered to be adequate for normal and emergency situations in conjunction with the building's audible alarm system. As provided under recommendation 5, the Department is taking steps to ensure that the alarm is not prematurely turned off in the event of future emergencies.*

13. Ensure that vaults containing high-voltage transformers are routinely locked and only personnel with a need to enter the vaults are issued keys.

*The electrical vault doors in the HCHB are keyed by GSA and controlled by them. HCHB building management has been given access to these rooms by GSA. The doors are not keyed to the HCHB master key system and OSY has no control over access to these vaults.*

*Building management has posted temporary signs on the vault and adjoining room doors that state the doors must remain locked at all times. Permanent signs are being made and should be posted within the next few weeks. Additionally, building management instituted procedures for its staff to physically check the locks on the vault room doors three times daily and report their status to the Director, Office of Safety and Building Management. During these daily checks, we discovered that several door locks did not work (a strong pull would open the locked door). These have been repaired and now work properly. This daily procedure will be followed until mid-March and then be re-evaluated to determine if the problem has been corrected.*

14. Ensure that persons who enter the building before and after normal hours, using a guarded entrance (including the 14<sup>th</sup> or 15<sup>th</sup> Street service ramp entrances), are required to sign in and sign out on the logs. Ensure that non-Commerce employees, including contractors, maintenance employees, and delivery personnel, are required to sign in and out at all times when entering or leaving the building.

*Procedures are currently in place with the HCHB contract guard force to ensure that all personnel, except those who have key card access, who enter or depart the HCHB during non-business hours sign-in and sign-out. Periodic checks of the access control logs will be made by OSY personnel to ensure these procedures are being followed*

15. In future crisis situations involving Commerce employees, immediately make counseling available to any employees who feel they might benefit from such a service.

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*We will exercise stronger outreach in the event of future crisis situations to ensure that employees are aware of the counseling available to them.*

16. In future crisis situations, keep all building occupants informed about health and safety issues that directly affect them.

*We agree with this recommendation and will do so in future crisis situations.*

17. Communicate a summary of what happened on October 1, as well as the results of the testing and cleanup, to all Hoover Building occupants as soon as possible.

*We have received the testing and cleanup results from the contractor. On February 28, an email was distributed to all building occupants advising them of the results of the A&A testing and cleanup.*

18. Create a command center for the Department.

*Arrangements to ensure the availability of facilities needed to maintain communications and continuity of operations in the event that the Hoover Building is compromised are under discussion.*

19. Perform an assessment to determine what type of environmental program is needed at the departmental level to ensure compliance with all applicable statutory requirements, executive orders, and departmental orders, as well as provide adequate protection for the Department and its employees.

*As noted by the Inspector General, the merits of having an environmental program at the Departmental level were outside the scope of the review. For this reason, we recommend deletion of this recommendation, although the observations made in the draft report are under consideration by the Department.*

Attachment 3

Recommendations Made and Action Taken in Response to the October 1, 1999 Fire

	Recommendation	Response	Status
1	Immediately begin performing the required preventive maintenance on the Hoover Building's central clock system.	Preventive maintenance on the central clock system is no longer necessary. The preventive maintenance required involved the electronics and mechanisms for the clock adjustment. These mechanisms and electronics were removed along with the capacitors.	No action needed.
2	In conjunction with GSA, conduct an inventory of remaining PCBs in the building and develop a plan to remove them, if necessary, or adequately contain them. If the PCBs cannot be removed, any equipment or area that contains them should be so marked. Because it would be impractical to mark the light ballasts, all appropriate personnel should be made aware that if a light ballast is not marked as PCB-free, it should be assumed to contain PCBs.	We completed the physical survey and responded to GSA on January 16. The survey found PCBs in small capacitors involving: <ul style="list-style-type: none"> <li>- 96 most (100-watt) lights,</li> <li>- 6 exterior 3<sup>RD</sup> floor (1000-watt) lights,</li> <li>- 36 exterior 3<sup>RD</sup> floor (400-watt) lights,</li> <li>- 164 exterior 7<sup>TH</sup> floor balcony (400-watt) lights, and</li> <li>- An unknown quantity of interior office and hall fluorescent T-12 light ballasts.</li> </ul>	We will work with GSA on an action plan to address all equipment containing PCBs.
3	Work with GSA to expedite the retesting of the vault floors for PCB contamination. If the vault floors are still contaminated, consider resealing them with an epoxy sealant or other protective material to eliminate or further minimize the spread of contaminants from the floors. Once the contamination factor of each vault is known, remove the current warning signs and replace them with either a sign that simply states that the vault contains no PCB transformers or a warning sign that stresses the contamination factor and the need for protective footwear.	A&A Environmental has provided us with a \$45,000 estimate to re-test the vault floors.	We will work with GSA to address this recommendation.

	Recommendation	Response	Status
4	Immediately make protective footwear and disposal drums available to staff who must work in the Hoover Building's contaminated vaults, until such time that the vaults are tested and found to be free of contamination.	Although it is GSA's responsibility to provide protective footwear in the vault rooms, the Department purchased footwear and disposal bags, and placed them in the vaults and adjoining rooms.	Action complete.
5	Better control access to the fire alarm control room and post signs to remind people to lock the door when they exit the room.	The door to the fire alarm control room at the 3 and 0 corridors, where the master fire alarm control panel is located, is keyed by OSY and is on the HCHB master key system. The key to this door is contained in a lock box on the door for which GSA has the combination, and provides access to the fire control room.  Following the fire, the lock on this door was changed and keys to this door are now issued on approval by building management. Building management has also posted signs on the door reminding people to keep the door locked.	Action complete.
6	Prepare a departmental policy statement or directive that explicitly outlines who has the authority to turn off a fire alarm and when it is appropriate to do so. This policy should be disseminated to all building management, Office of Security, and security guard staff and be prominently posted on the fire alarm control panel.	We agree with the necessity of issuing a statement establishing who has authority to turn off the fire alarm and at what point it is appropriate.	As the fire alarm system is under its purview, we will develop this policy statement in collaboration with GSA and disseminate it as recommended.
7	Identify funding for and then acquire and install a public address system in the Hoover Building.	The Department agrees that a public address system would enhance building security and safety in the event of a similar emergency.	The Department is discussing the scope of such a system with GSA in the context of additional renovations intended for the Hoover Building.

	Recommendation	Response	Status
8	In conjunction with GSA, determine what caused the fire and smoke alarms to malfunction. Corrective measures should be taken to ensure that the problems do not recur.	GSA tested all the smoke alarms on February 8. All smoke alarms were functional. GSA tested the fire alarm system in the Herbert Hoover Building on February 17 from 1:00 a.m. until 3:00 a.m. The audio visual devices were activated building-wide several times. GSA planned to conduct follow-on testing of the fire alarm system on February 23 and 24, and will inform us of the results shortly.	We await the results of GSA's follow-on testing of the fire alarm system.
9	Immediately install a security door, an alarm, and an "Emergency Exit Only" sign at the first floor level of stairwell number 13 to ensure access in the case of an emergency.	The door in question is located on the 1 <sup>st</sup> floor at the center of the 6 <sup>th</sup> corridor which leads to the DOC Child Care Center. There were two other 1 <sup>st</sup> floor doors that were locked in the same manner and also lead to the Child Care Center. All three doors have been fitted with emergency egress panic bars which will provide for immediate access to the 1 <sup>st</sup> floor and to an exit from the building in the event of future emergencies. These emergency exits have also been marked for "Emergency Exit Only." This work was completed on January 19.	Action complete.
10	Take appropriate corrective actions to fix the one exterior door (first floor at intersection of 7 and 8 corridors) that did not open on October 1. Further, check all Hoover Building exterior doors to make sure they will open during an emergency. If necessary, make repairs to ensure that all of the doors are working properly.	The age of the building and doors has caused some doors to hang improperly. On occasion, doors will become misaligned and unable to open. Monthly, OSY inspects all of the doors in the Hoover Building and reports any such failures to building management for corrective action.	Building management continues to aggressively replace faulty door closure systems.

	Recommendation	Response	Status
11	Disseminate to the Hoover Building's occupants the emergency evacuation plan or clear guidance outlining evacuation steps and responsibilities based on the plan. Follow up with regular fire drills to ensure that employees remain familiar with the building's evacuation procedures. As part of this education effort, building occupants should also be told that all doors in the building are open for exit during an emergency and all doors should be utilized during an evacuation.	OSY and OAS will partner to implement this recommendation. On February 11, we conducted a fire drill of the HCHB. On February 28, an email was distributed to all building occupants stressing the importance and seriousness of responding properly to a fire alarm.	Action complete.
12	Develop procedures so that, in the case of an emergency evacuation of the building, the new key card access system on the courtyard exterior doors is immediately disabled so that entrance through those doors is not permitted.	Key card doors are controlled by an electronic device inside the door panic bar hardware, which is activated by use of a key card. These doors allow immediate egress, but deny unauthorized entry. This is standard procedure for key card operated doors. The problem experienced on October 1 was that the fire alarm was not sounding during the emergency situation. Therefore, there was no way to know that there was an emergency in the building. The current function of the key card doors is considered to be adequate for normal and emergency situations in conjunction with the building's audible alarm system. As provided under recommendation 5, the Department is taking steps to ensure that the alarm is not prematurely turned off in the event of future emergencies.	No action necessary.

	Recommendation	Response	Status
13	Ensure that vaults containing high-voltage transformers are routinely locked and only personnel with a need to enter the vaults are issued keys.	<p>The electrical vault doors in the HCHB are keyed by GSA and controlled by them. HCHB building management has been given access to these rooms by GSA. The doors are not keyed to the HCHB master key system and OSY has no control over access to these vaults. Building management has posted temporary signs on the vault and adjoining room doors that state the doors must remain locked at all times.</p> <p>Additionally, building management instituted procedures for its staff to physically check the locks on the vault room doors three times daily and report their status to the Director, Office of Safety and Building Management. During these daily checks, we discovered that several door locks did not work (a strong pull would open the locked door). These have been repaired and now work properly.</p>	<p>Permanent signs reminding people of the need to keep these doors locked are being made and should be posted within the next few weeks.</p> <p>The new procedure of physically checking these doors three times each day will be followed until mid-March when it will be re-evaluated to determine if the problem has been corrected.</p>
14	Ensure that persons who enter the building before and after normal hours, using a guarded entrance (including the 14 <sup>th</sup> or 15 <sup>th</sup> Street service ramp entrances), are required to sign in and sign out on the logs. Ensure that non-Commerce employees, including contractors, maintenance employees, and delivery personnel, are required to sign in and out at all times when entering or leaving the building.	Procedures are currently in place with the HCIB contract guard force to ensure that all personnel, except those who have key card access, who enter or depart the HCHB during non-business hours sign in and sign out. Periodic checks of the access control logs will be made by OSY personnel to ensure these procedures are being followed.	No action needed.
15	In future crisis situations involving Commerce employees, immediately make counseling available to any employees who feel they might benefit from such a service.	We will exercise stronger outreach in the event of future crisis situations to ensure that employees are aware of the counseling available to them.	No action needed.
16	In future crisis situations, keep all building occupants informed about health and safety issues that directly affect them.	We agree with this recommendation and will do so in future crisis situations.	No action needed.

	Recommendation	Response	Status
17	Communicate a summary of what happened on October 1, as well as the results of the testing and cleanup, to all Hoover Building occupants as soon as possible.	We have received the testing and cleanup results from the contractor. On February 28, an email was distributed to all building occupants advising them of the results of the A&A testing and cleanup.	Action complete.
18	Create a command center for the Department.	Arrangements to ensure the availability of facilities needed to maintain communications and continuity of operations in the event that the Hoover Building is compromised are under discussion.	Action pending.
19	Perform an assessment to determine what type of environmental program is needed at the departmental level to ensure compliance with all applicable statutory requirements, executive orders, and departmental orders, as well as provide adequate protection for the Department and its employees.	As noted by the Inspector General, the merits of having an environmental program at the Departmental level were outside the scope of the review. For this reason, we suggest deletion of this recommendation.	The observations offered in the draft report are under consideration by the Department.